TSG-RAN Meeting #18 ***RP-020724***

***New-Orleans, USA, 03* - 06 December 2002**

Title: **CRs (R'99 and Rel-4/Rel-5 category A) to TS 25.331. (4)**

Source: **TSG-RAN WG2**

Agenda item: **7.2.3**

Doc-1st-	Status-	Spec	CR	Rev	Phase	Subject	Cat	Version	Version
R2-023112	Agreed	25.331	1752	-	R'99	DPCH compressed mode info in Downlink information common for all RLs	F	3.12.0	3.13.0
R2-023113	Agreed	25.331	1753	-	Rel-4	DPCH compressed mode info in Downlink information common for all RLs	A	4.7.0	4.8.0
R2-023114	Agreed	25.331	1754	-	Rel-5	DPCH compressed mode info in Downlink information common for all RLs	A	5.2.0	5.3.0
R2-023255	Agreed	25.331	1755	1	R'99	Handling of RB mapping	F	3.12.0	3.13.0
R2-023256	Agreed	25.331	1756	1	Rel-4	Handling of RB mapping	A	4.7.0	4.8.0
R2-023257	Agreed	25.331	1757	1	Rel-5	Handling of RB mapping	A	5.2.0	5.3.0
R2-023129	Agreed	25.331	1764	-	R'99	RLC window size in default configurations	F	3.12.0	3.13.0
R2-023130	Agreed	25.331	1765	-	Rel-4	RLC window size in default configurations	A	4.7.0	4.8.0
R2-023131	Agreed	25.331	1766	-	Rel-5	RLC window size in default configurations	A	5.2.0	5.3.0
R2-023132	Agreed	25.331	1767	-	R'99	Corrections to Activation time	F	3.12.0	3.13.0
R2-023133	Agreed	25.331	1768	-	Rel-4	Corrections to Activation time	A	4.7.0	4.8.0
R2-023134	Agreed	25.331	1769	-	Rel-5	Corrections to Activation time	A	5.2.0	5.3.0
R2-023135	Agreed	25.331	1770	-	R'99	Numbering of "ASC Setting" IEs included in "PRACH partitioning" IE	F	3.12.0	3.13.0
R2-023136	Agreed	25.331	1771	-	Rel-4	Numbering of "ASC Setting" IEs included in "PRACH partitioning" IE	A	4.7.0	4.8.0
R2-023137	Agreed	25.331	1772	-	Rel-5	Numbering of "ASC Setting" IEs included in "PRACH partitioning" IE	A	5.2.0	5.3.0

R2-023280	Agreed	25.331	1777	3	R'99	Correction on support for compressed mode	F	3.12.0	3.13.0
R2-023251	Agreed	25.331	1778	2	Rel-4	Correction on support for compressed mode	A	4.7.0	4.8.0
R2-023252	Agreed	25.331	1779	2	Rel-5	Correction on support for compressed mode	A	5.2.0	5.3.0

TSG-RAN Working Group 2 meeting #33 **R2-023112**
Sophia-Antipolis, France 12th – 15rd November 2002

CR-Form-v7

CHANGE REQUEST

⌘ **25.331** **CR** **1752** ⌘ **rev** ⌘ Current version: **3.12.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☒ Core Network ☐

Title:	⌘	DPCH compressed mode info in Downlink information common for all RLs
Source:	⌘	Ericsson
Work item code:	⌘	TEI
Date:	⌘	October 2002
Category:	⌘	**F**
Release:	⌘	R99

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change: ⌘ Currently, the specification contains ambiguous statements regarding what the UE shall do when the IE "DPCH compressed mode info" is not included in the IE "Downlink information common for all radio links".

Summary of change: ⌘ It is proposed to:

- remove the ambiguous semantics in 10.3.6.24;
- make the inclusion of the IE "DPCH compressed mode info" OP;
- clarify that the text in 8.6.6.15 is also applicable in the case the IE "DPCH compressed mode info" is not received;

T1 impact:
No impact on T1 specifications is foreseen.

Impact analysis:
Impacted functionality: Compressed mode activation

A UE not implementing this CR and having assumed the incorrect behaviour will restart CM patterns erroneously when the IE "DPCH compressed mode info" is not included in the IE "Downlink information common for all radio links".

A UTRAN not implementing this CR and having assumed the incorrect behaviour will assume CM pattern restarts erroneously when the IE "DPCH compressed mode info" is not included in the IE "Downlink information common for all radio links".

Clarification of a function where the specification is ambigous. Does not affect

		implementations behaving like indicated in the CR, would affect implementations supporting the corrected functionality otherwise
Consequences if not approved:	⌘	If this CR is not approved, in cases where a UTRAN and UE have a different assumption regarding the CM restart, degraded handover performance and dropped calls may be the result.

Clauses affected:	⌘	8.6.6.15; 10.3.6.24			
		Y	**N**		
Other specs Affected:	⌘		**X**	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.
2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

8.6 Generic actions on receipt and absence of an information element

// partly skipped //

8.6.6.15 DPCH Compressed mode info

If the IE "DPCH compressed mode info" is included, and if the IE group "transmission gap pattern sequence configuration parameters" is included, the UE shall for each transmission gap pattern sequence perform the following consistency checks:

1> if UE, according to its measurement capabilities, and for the measurement purpose indicated by IE "TGMP", requires UL compressed mode for measurements on any of the cells to be measured according to UE variable CELL_INFO_LIST, and CHOICE 'UL/DL mode' indicates 'DL only':

2> set the variable INVALID_CONFIGURATION to TRUE.

1> if UE, according to its measurement capabilities, and for the measurement purpose indicated by IE "TGMP", requires DL compressed mode for measurements on any of the cells to be measured according to UE variable CELL_INFO_LIST, and CHOICE 'UL/DL mode' indicates 'UL only':

2> set the variable INVALID_CONFIGURATION to TRUE.

1> if UE already has an active transmission gap pattern sequence that, according to IE "TGMP", has the same measurement purpose, and both patterns will be active after the new configuration has been taken into use:

2> set the variable INVALID_CONFIGURATION to TRUE.

If variable INVALID_CONFIGURATION has value FALSE after UE has performed the checks above, the UE shall:

1> if pattern sequence corresponding to IE "TGPSI" is already active (according to "Current TGPS Status Flag") in the variable TGPS_IDENTITY):

2> if the "TGPS Status Flag" in this message is set to "deactivate" for the corresponding pattern sequence:

3> deactivate this pattern sequence at the beginning of the frame, indicated by IE "Activation time"(see subclause 8.6.3.1) received in this message, when the new configuration received in this message is taken into use.

2> if the "TGPS Status Flag" in this message is set to "activate" for the corresponding pattern sequence:

3> deactivate this pattern sequence at the beginning of the frame, indicated by IE "Activation time"(see subclause 8.6.3.1) received in this message, when the new configuration received in this message is taken into use.

NOTE: The temporary deactivation of pattern sequences for which the status flag is set to "activate" can be used by the network to align the timing of already active patterns with newly activated patterns.

1> update each pattern sequence to the variable TGPS_IDENTITY according to the IE "TGPSI";

1> update into the variable TGPS_IDENTITY the configuration information defined by IE group" transmission gap pattern sequence configuration parameters ";

1> after the new configuration has been taken into use:

2> activate the stored pattern sequence corresponding to each IE "TGPSI" for which the "Current TGPS status flag" in the variable TGPS_IDENTITY is set to "active" at the time indicated by IE "TGCFN"; and

2> begin the inter-frequency and/or inter-RAT measurements corresponding to the pattern sequence measurement purpose of each activated pattern sequence;

2> if the new configuration is taken into use at the same CFN as indicated by IE "TGCFN":

3> start the concerned pattern sequence immediately at that CFN.

1> monitor if the parallel transmission gap pattern sequences create an illegal overlap, and in case of overlap, take actions as specified in subclause 8.2.11.2.

If the IE "DPCH compressed mode info" is included, and if the IE group "transmission gap pattern sequence configuration parameters" is not included, the UE shall:

1> if pattern sequence corresponding to IE "TGPSI" is already active (according to "Current TGPS Status Flag" in the variable TGPS_IDENTITY):

2> if the "TGPS Status Flag" in this message is set to "deactivate" for the corresponding pattern sequence:

3> deactivate this pattern sequence at the beginning of the frame, indicated by IE "Activation time"(see subclause 8.6.3.1) received in this message, when the new configuration received in this message is taken into use;

3> set the "Current TGPS Status Flag" for this pattern sequence in the variable TGPS_IDENTITY to "inactive".

2> if the "TGPS Status Flag" in this message is set to "activate" for the corresponding pattern sequence:

3> deactivate this pattern sequence at the beginning of the frame, indicated by IE "Activation time"(see subclause 8.6.3.1) received in this message, when the new configuration received in this message is taken into use.

NOTE: The temporary deactivation of pattern sequences for which the status flag is set to "activate" can be used by the network to align the timing of already active patterns with newly activated patterns.

1> after the new configuration has been taken into use:

2> activate, at the time indicated by IE "TGCFN", the stored pattern sequence corresponding to each IE "TGPSI" for which the "TGPS status flag" is set to "activate"; and

2> begin the inter-frequency and/or inter-RAT measurements corresponding to the pattern sequence measurement purpose of each activated pattern sequence;

2> if the new configuration is taken into use at the same CFN as indicated by IE "TGCFN":

3> start the concerned pattern sequence immediately at that CFN.

For transmission gap pattern sequences stored in variable TGPS_IDENTITY, but not identified in IE "TGPSI" (either due to absence of the IE “DPCH compressed mode info” in the received message or due to not receiving the concerning TGPSI value in the IE “DPCH compressed mode info”), the UE shall:

1> if the received message implies a timing re-initialised hard handover (see subclause 8.3.5.1):

2> deactivate such transmission gap pattern sequences at the beginning of the frame, indicated by IE "Activation time" (see subclause 8.6.3.1) received in this message; and

2> set IE "Current TGPS Status Flag" in corresponding UE variable TGPS_IDENTITY to 'inactive'.

1> if the received message not implies a timing re-initialised hard handover (see subclause 8.3.5.1):

2> continue such transmission gap pattern sequence according to IE "Current TGPS Status Flag" in the corresponding UE variable TGPS_IDENTITY.

Uplink and downlink compressed mode methods are described in [27]. For UL "higher layer scheduling" compressed mode method and transport format combination selection, see [15].

10.3.6.24 Downlink information common for all radio links

Information Element/Group name	Need	Multi	Type and reference	Semantics description
Downlink DPCH info common for all RL	OP		Downlink DPCH info common for all RL 10.3.6.18	
CHOICE *mode*	MP			
>FDD				
>>DPCH compressed mode info	~~MD~~OP		DPCH compressed mode info 10.3.6.33	~~Default value is the existing value of DPCH compressed mode information~~
>>TX Diversity Mode	MD		TX Diversity Mode 10.3.6.86	Default value is the existing value of TX Diversity mode
>>SSDT information	OP		SSDT information 10.3.6.77	
>TDD				(no data)
Default DPCH Offset Value	OP		Default DPCH Offset Value, 10.3.6.16	

TSG-RAN Working Group 2 meeting #33 **R2-023113**
Sophia-Antipolis, France 12th – 15rd November 2002

CR-Form-v7

CHANGE REQUEST

⌘ **25.331** **CR** **1753** ⌘ **rev** ⌘ Current version: **4.7.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☒ Core Network ☐

Title:	⌘	DPCH compressed mode info in Downlink information common for all RLs
Source:	⌘	Ericsson
Work item code:	⌘	TEI
Date:	⌘	October 2002
Category:	⌘	**A**
Release:	⌘	Rel-4

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:
2 (GSM Phase 2)
R96 (Release 1996)
R97 (Release 1997)
R98 (Release 1998)
R99 (Release 1999)
Rel-4 (Release 4)
Rel-5 (Release 5)
Rel-6 (Release 6)

Reason for change: ⌘ Currently, the specification contains ambiguous statements regarding what the UE shall do when the IE "DPCH compressed mode info" is not included in the IE "Downlink information common for all radio links".

Summary of change: ⌘ It is proposed to:

- remove the ambiguous semantics in 10.3.6.24;
- make the inclusion of the IE "DPCH compressed mode info" OP;
- clarify that the text in 8.6.6.15 is also applicable in the case the IE "DPCH compressed mode info" is not received;

T1 impact:
No impact on T1 specifications is foreseen.

Impact analysis:
Impacted functionality: Compressed mode activation

A UE not implementing this CR and having assumed the incorrect behaviour will restart CM patterns erroneously when the IE "DPCH compressed mode info" is not included in the IE "Downlink information common for all radio links".

A UTRAN not implementing this CR and having assumed the incorrect behaviour will assume CM pattern restarts erroneously when the IE "DPCH compressed mode info" is not included in the IE "Downlink information common for all radio links".

Clarification of a function where the specification is ambigous. Does not affect

		implementations behaving like indicated in the CR, would affect implementations supporting the corrected functionality otherwise
Consequences if not approved:	⌘	If this CR is not approved, in cases where a UTRAN and UE have a different assumption regarding the CM restart, degraded handover performance and dropped calls may be the result.

Clauses affected:	⌘	8.6.6.15; 10.3.6.24			
		Y	**N**		
Other specs Affected:	⌘		**X**	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

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3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

8.6 Generic actions on receipt and absence of an information element

// partly skipped //

8.6.6.15 DPCH Compressed mode info

If the IE "DPCH compressed mode info" is included, and if the IE group "transmission gap pattern sequence configuration parameters" is included, the UE shall for each transmission gap pattern sequence perform the following consistency checks:

1> if UE, according to its measurement capabilities, and for the measurement purpose indicated by IE "TGMP", requires UL compressed mode for measurements on any of the cells to be measured according to UE variable CELL_INFO_LIST, and CHOICE 'UL/DL mode' indicates 'DL only':

2> set the variable INVALID_CONFIGURATION to TRUE.

1> if UE, according to its measurement capabilities, and for the measurement purpose indicated by IE "TGMP", requires DL compressed mode for measurements on any of the cells to be measured according to UE variable CELL_INFO_LIST, and CHOICE 'UL/DL mode' indicates 'UL only':

2> set the variable INVALID_CONFIGURATION to TRUE.

1> if UE already has an active transmission gap pattern sequence that, according to IE "TGMP", has the same measurement purpose, and both patterns will be active after the new configuration has been taken into use:

2> set the variable INVALID_CONFIGURATION to TRUE.

If variable INVALID_CONFIGURATION has value FALSE after UE has performed the checks above, the UE shall:

1> if pattern sequence corresponding to IE "TGPSI" is already active (according to "Current TGPS Status Flag") in the variable TGPS_IDENTITY):

2> if the "TGPS Status Flag" in this message is set to "deactivate" for the corresponding pattern sequence:

3> deactivate this pattern sequence at the beginning of the frame, indicated by IE "Activation time"(see subclause 8.6.3.1) received in this message, when the new configuration received in this message is taken into use.

2> if the "TGPS Status Flag" in this message is set to "activate" for the corresponding pattern sequence:

3> deactivate this pattern sequence at the beginning of the frame, indicated by IE "Activation time"(see subclause 8.6.3.1) received in this message, when the new configuration received in this message is taken into use.

NOTE: The temporary deactivation of pattern sequences for which the status flag is set to "activate" can be used by the network to align the timing of already active patterns with newly activated patterns.

1> update each pattern sequence to the variable TGPS_IDENTITY according to the IE "TGPSI";

1> update into the variable TGPS_IDENTITY the configuration information defined by IE group" transmission gap pattern sequence configuration parameters ";

1> after the new configuration has been taken into use:

2> activate the stored pattern sequence corresponding to each IE "TGPSI" for which the "Current TGPS status flag" in the variable TGPS_IDENTITY is set to "active" at the time indicated by IE "TGCFN"; and

2> begin the inter-frequency and/or inter-RAT measurements corresponding to the pattern sequence measurement purpose of each activated pattern sequence;

2> if the new configuration is taken into use at the same CFN as indicated by IE "TGCFN":

3> start the concerned pattern sequence immediately at that CFN.

1> monitor if the parallel transmission gap pattern sequences create an illegal overlap, and in case of overlap, take actions as specified in subclause 8.2.11.2.

If the IE "DPCH compressed mode info" is included, and if the IE group "transmission gap pattern sequence configuration parameters" is not included, the UE shall:

1> if pattern sequence corresponding to IE "TGPSI" is already active (according to "Current TGPS Status Flag" in the variable TGPS_IDENTITY):

2> if the "TGPS Status Flag" in this message is set to "deactivate" for the corresponding pattern sequence:

3> deactivate this pattern sequence at the beginning of the frame, indicated by IE "Activation time"(see subclause 8.6.3.1) received in this message, when the new configuration received in this message is taken into use;

3> set the "Current TGPS Status Flag" for this pattern sequence in the variable TGPS_IDENTITY to "inactive".

2> if the "TGPS Status Flag" in this message is set to "activate" for the corresponding pattern sequence:

3> deactivate this pattern sequence at the beginning of the frame, indicated by IE "Activation time"(see subclause 8.6.3.1) received in this message, when the new configuration received in this message is taken into use.

NOTE: The temporary deactivation of pattern sequences for which the status flag is set to "activate" can be used by the network to align the timing of already active patterns with newly activated patterns.

1> after the new configuration has been taken into use:

2> activate, at the time indicated by IE "TGCFN", the stored pattern sequence corresponding to each IE "TGPSI" for which the "TGPS status flag" is set to "activate"; and

2> begin the inter-frequency and/or inter-RAT measurements corresponding to the pattern sequence measurement purpose of each activated pattern sequence;

2> if the new configuration is taken into use at the same CFN as indicated by IE "TGCFN":

3> start the concerned pattern sequence immediately at that CFN.

For transmission gap pattern sequences stored in variable TGPS_IDENTITY, but not identified in IE "TGPSI"(either due to absence of the IE “DPCH compressed mode info” in the received message or due to not receiving the concerning TGPSI value in the IE “DPCH compressed mode info”), the UE shall:

1> if the received message implies a timing re-initialised hard handover (see subclause 8.3.5.1):

2> deactivate such transmission gap pattern sequences at the beginning of the frame, indicated by IE "Activation time" (see subclause 8.6.3.1) received in this message; and

2> set IE "Current TGPS Status Flag" in corresponding UE variable TGPS_IDENTITY to 'inactive'.

1> if the received message not implies a timing re-initialised hard handover (see subclause 8.3.5.1):

2> continue such transmission gap pattern sequence according to IE "Current TGPS Status Flag" in the corresponding UE variable TGPS_IDENTITY.

Uplink and downlink compressed mode methods are described in [27]. For UL "higher layer scheduling" compressed mode method and transport format combination selection, see [15].

10.3.6.24 Downlink information common for all radio links

Information Element/Group name	Need	Multi	Type and reference	Semantics description	Version
Downlink DPCH info common for all RL	OP		Downlink DPCH info common for all RL 10.3.6.18		
CHOICE *mode*	MP				
>FDD					
>>DPCH compressed mode info	OP~~MD~~		DPCH compressed mode info 10.3.6.33	~~Default value is the existing value of DPCH compressed mode information~~	
>>TX Diversity Mode	MD		TX Diversity Mode 10.3.6.86	Default value is the existing value of TX Diversity mode	
>>SSDT information	OP		SSDT information 10.3.6.77		
>TDD				(no data)	
>>CHOICE *TDD option*	MP				REL-4
>>>3.84 Mcps TDD				(no data)	REL-4
>>>1.28 Mcps TDD					REL-4
>>>>TSTD indicator	MP		TSTD indicator 10.3.6.85a		REL-4
Default DPCH Offset Value	OP		Default DPCH Offset Value, 10.3.6.16		

TSG-RAN Working Group 2 meeting #33 **R2-023114**
Sophia-Antipolis, France 12th – 15rd November 2002

CR-Form-v7

CHANGE REQUEST

⌘ **25.331** **CR** **1754** ⌘ **rev** ⌘ Current version: **5.2.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☒ Core Network ☐

Title:	⌘	DPCH compressed mode info in Downlink information common for all RLs
Source:	⌘	Ericsson
Work item code:	⌘	TEI
Date:	⌘	October 2002
Category:	⌘	**A**
Release:	⌘	Rel-5

Use one of the following categories:
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B *(addition of feature),*
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Use one of the following releases:

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R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change: ⌘ Currently, the specification contains ambiguous statements regarding what the UE shall do when the IE "DPCH compressed mode info" is not included in the IE "Downlink information common for all radio links".

Summary of change: ⌘ It is proposed to:

- remove the ambiguous semantics in 10.3.6.24;
- make the inclusion of the IE "DPCH compressed mode info" OP;
- clarify that the text in 8.6.6.15 is also applicable in the case the IE "DPCH compressed mode info" is not received;

T1 impact:
No impact on T1 specifications is foreseen.

Impact analysis:
Impacted functionality: Compressed mode activation

A UE not implementing this CR and having assumed the incorrect behaviour will restart CM patterns erroneously when the IE "DPCH compressed mode info" is not included in the IE "Downlink information common for all radio links".

A UTRAN not implementing this CR and having assumed the incorrect behaviour will assume CM pattern restarts erroneously when the IE "DPCH compressed mode info" is not included in the IE "Downlink information common for all radio links".

Clarification of a function where the specification is ambigous. Does not affect

		implementations behaving like indicated in the CR, would affect implementations supporting the corrected functionality otherwise
Consequences if not approved:	⌘	If this CR is not approved, in cases where a UTRAN and UE have a different assumption regarding the CM restart, degraded handover performance and dropped calls may be the result.

Clauses affected:	⌘	8.6.6.15; 10.3.6.24			
		Y	**N**		
Other specs Affected:	⌘		**X**	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

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3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

8.6 Generic actions on receipt and absence of an information element

// partly skipped //

8.6.6.15 DPCH Compressed mode info

If the IE "DPCH compressed mode info" is included, and if the IE group "transmission gap pattern sequence configuration parameters" is included, the UE shall for each transmission gap pattern sequence perform the following consistency checks:

1> if UE, according to its measurement capabilities, and for the measurement purpose indicated by IE "TGMP", requires UL compressed mode for measurements on any of the cells to be measured according to UE variable CELL_INFO_LIST, and CHOICE 'UL/DL mode' indicates 'DL only':

2> set the variable INVALID_CONFIGURATION to TRUE.

1> if UE, according to its measurement capabilities, and for the measurement purpose indicated by IE "TGMP", requires DL compressed mode for measurements on any of the cells to be measured according to UE variable CELL_INFO_LIST, and CHOICE 'UL/DL mode' indicates 'UL only':

2> set the variable INVALID_CONFIGURATION to TRUE.

1> if UE already has an active transmission gap pattern sequence that, according to IE "TGMP", has the same measurement purpose, and both patterns will be active after the new configuration has been taken into use:

2> set the variable INVALID_CONFIGURATION to TRUE.

If variable INVALID_CONFIGURATION has value FALSE after UE has performed the checks above, the UE shall:

1> if pattern sequence corresponding to IE "TGPSI" is already active (according to "Current TGPS Status Flag") in the variable TGPS_IDENTITY):

2> if the "TGPS Status Flag" in this message is set to "deactivate" for the corresponding pattern sequence:

3> deactivate this pattern sequence at the beginning of the frame, indicated by IE "Activation time"(see subclause 8.6.3.1) received in this message, when the new configuration received in this message is taken into use.

2> if the "TGPS Status Flag" in this message is set to "activate" for the corresponding pattern sequence:

3> deactivate this pattern sequence at the beginning of the frame, indicated by IE "Activation time"(see subclause 8.6.3.1) received in this message, when the new configuration received in this message is taken into use.

NOTE: The temporary deactivation of pattern sequences for which the status flag is set to "activate" can be used by the network to align the timing of already active patterns with newly activated patterns.

1> update each pattern sequence to the variable TGPS_IDENTITY according to the IE "TGPSI";

1> update into the variable TGPS_IDENTITY the configuration information defined by IE group" transmission gap pattern sequence configuration parameters ";

1> after the new configuration has been taken into use:

2> activate the stored pattern sequence corresponding to each IE "TGPSI" for which the "Current TGPS status flag" in the variable TGPS_IDENTITY is set to "active" at the time indicated by IE "TGCFN"; and

2> begin the inter-frequency and/or inter-RAT measurements corresponding to the pattern sequence measurement purpose of each activated pattern sequence;

2> if the new configuration is taken into use at the same CFN as indicated by IE "TGCFN":

3> start the concerned pattern sequence immediately at that CFN.

1> monitor if the parallel transmission gap pattern sequences create an illegal overlap, and in case of overlap, take actions as specified in subclause 8.2.11.2.

If the IE "DPCH compressed mode info" is included, and if the IE group "transmission gap pattern sequence configuration parameters" is not included, the UE shall:

1> if pattern sequence corresponding to IE "TGPSI" is already active (according to "Current TGPS Status Flag" in the variable TGPS_IDENTITY):

2> if the "TGPS Status Flag" in this message is set to "deactivate" for the corresponding pattern sequence:

3> deactivate this pattern sequence at the beginning of the frame, indicated by IE "Activation time"(see subclause 8.6.3.1) received in this message, when the new configuration received in this message is taken into use;

3> set the "Current TGPS Status Flag" for this pattern sequence in the variable TGPS_IDENTITY to "inactive".

2> if the "TGPS Status Flag" in this message is set to "activate" for the corresponding pattern sequence:

3> deactivate this pattern sequence at the beginning of the frame, indicated by IE "Activation time"(see subclause 8.6.3.1) received in this message, when the new configuration received in this message is taken into use.

NOTE: The temporary deactivation of pattern sequences for which the status flag is set to "activate" can be used by the network to align the timing of already active patterns with newly activated patterns.

1> after the new configuration has been taken into use:

2> activate, at the time indicated by IE "TGCFN", the stored pattern sequence corresponding to each IE "TGPSI" for which the "TGPS status flag" is set to "activate"; and

2> begin the inter-frequency and/or inter-RAT measurements corresponding to the pattern sequence measurement purpose of each activated pattern sequence;

2> if the new configuration is taken into use at the same CFN as indicated by IE "TGCFN":

3> start the concerned pattern sequence immediately at that CFN.

For transmission gap pattern sequences stored in variable TGPS_IDENTITY, but not identified in IE "TGPSI" (either due to absence of the IE “DPCH compressed mode info” in the received message or due to not receiving the concerning TGPSI value in the IE “DPCH compressed mode info”), the UE shall:

1> if the received message implies a timing re-initialised hard handover (see subclause 8.3.5.1):

2> deactivate such transmission gap pattern sequences at the beginning of the frame, indicated by IE "Activation time" (see subclause 8.6.3.1) received in this message; and

2> set IE "Current TGPS Status Flag" in corresponding UE variable TGPS_IDENTITY to 'inactive'.

1> if the received message not implies a timing re-initialised hard handover (see subclause 8.3.5.1):

2> continue such transmission gap pattern sequence according to IE "Current TGPS Status Flag" in the corresponding UE variable TGPS_IDENTITY.

Uplink and downlink compressed mode methods are described in [27]. For UL "higher layer scheduling" compressed mode method and transport format combination selection, see [15].

10.3.6.24 Downlink information common for all radio links

Information Element/Group name	Need	Multi	Type and reference	Semantics description	Version
Downlink DPCH info common for all RL	OP		Downlink DPCH info common for all RL 10.3.6.18		
CHOICE *mode*	MP				
>FDD					
>>DPCH compressed mode info	OP~~MD~~		DPCH compressed mode info 10.3.6.33	~~Default value is the existing value of DPCH compressed mode information~~	
>>TX Diversity Mode	MD		TX Diversity Mode 10.3.6.86	Default value is the existing value of TX Diversity mode	
>>SSDT information	OP		SSDT information 10.3.6.77		
>TDD				(no data)	
>>CHOICE *TDD option*	MP				REL-4
>>>3.84 Mcps TDD				(no data)	REL-4
>>>1.28 Mcps TDD					REL-4
>>>>TSTD indicator	MP		TSTD indicator 10.3.6.85a		REL-4
Default DPCH Offset Value	OP		Default DPCH Offset Value, 10.3.6.16		

TSG-RAN Working Group 2 meeting #33 **R2-023255**
Sophia-Antipolis, France 12th – 15rd November 2002

CR-Form-v7

CHANGE REQUEST

⌘ **25.331** **CR** **1755** ⌘ **rev** **1** ⌘ Current version: **3.12.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ [ ] ME [X] Radio Access Network [X] Core Network [ ]

Title:	⌘	Handling of RB mapping
Source:	⌘	Ericsson
Work item code:	⌘	TEI
Date:	⌘	October 2002
Category:	⌘	**F**
Release:	⌘	R99

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change: ⌘ 1) In the current specification, it is not clear that the actions currently indicated to be applicable on receipt of the IE "RB mapping info" or the IE "Transport Format Set" in section 8, also have to be executed at certain other occasions like cell reselection and state transitions. This CR attempts to clarify this behaviour.

2) It is erroneously stated that the TFS of an AM RLC not on RACH may only contain one RLC size. The text should indicate that the TFS can only include 1 RLC size not equal to zero.

3) The specification is ambiguous regarding if an RLC size of 0 corresponds to a TB size of 0 (see R2-022987)

Summary of change: ⌘ 1) A new section has been created in which functionality that also has to be executed at cell reselection or state transition, is copied from the sections on the handling of the IEs RB mapping info" and "Transport Format Set".

2) Clarification is made in 8.6.4.8

3) Related formula is made consistent with the text in the same section (8.6.5.1)

T1 impact:
No impact on T1 specifications is foreseen.

Impact analysis:
Impacted functionality: RB mapping

A UE not implementing this CR and having assumed the incorrect behaviour might not perform certain required actions related to logical channel <->transport

		channel mapping at state transitions and cell reselection. A UTRAN not implementing this CR and having assumed the incorrect behaviour will not use the indicated functionality. Clarification of a function where the specification is ambiguous. Does not affect implementations behaving like indicated in the CR, would affect implementations supporting the corrected functionality otherwise
Consequences if not approved:	⌘	If this CR is not approved, UE and UTRAN might have a different assumption on the applicable RB mapping which may lead to continuous demultiplexing problems and dropped calls.

Clauses affected:	⌘	8.5.21 (new); 8.6.4.8; 8.6.5.1			
		Y	**N**		
Other specs Affected:	⌘		**X**	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

How to create CRs using this form:
Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

8.5.21 Actions related to Radio Bearer mapping

When the UE receives the IE “RB mapping info” and/or the IE “Transport format set”, when the UE performs cell reselection or a state transition, or when the UE releases a RB, the UE shall for each of the configured Radio Bearers:

1> configure the MAC with the appropriate transport format set (with computed transport block sizes) for the transport channel used by that RB;

1> determine the sets of RLC sizes that apply to the logical channels used by that RB, based on the IEs "RLC size list" and/or the IEs "Logical Channel List" included in the applicable "Transport format set" (either the ones received in the same message or the ones stored if non were received);

1> in case the selected multiplexing option is a multiplexing option on RACH:

2> ignore the RLC size indexes that do not correspond to any RLC size within the Transport Format Set stored for RACH.

1> if RACH is the transport channel to be used on the uplink, if that RB has a multiplexing option on RACH and if it is using AM:

2> apply the largest size amongst the ones derived according to the previous bullet for the RLC size (or RLC sizes in case the RB is realised using two logical channels) for the corresponding RLC entity.

NOTE: The IE "RB mapping info" is only included in IE "Predefined RB configurations" in system information when used for Inter-RAT handover to UTRAN and there is no AM RLC size change involved in this case.

1> if that RB is using AM and the RLC size applicable to the logical channel transporting data PDUs is different from the one derived from the previously stored configuration:

2> re-establish the corresponding RLC entity;

2> configure the corresponding RLC entity with the new RLC size;

2> for each AM RLC radio bearer in the CN domain as indicated in the IE "CN domain identity" in the IE "RAB info" in the variable ESTABLISHED_RABS whose RLC size is changed; and

2> for each AM RLC signalling radio bearer in the CN domain as indicated in the IE "CN domain identity" in the variable LATEST_CONFIGURED_CN_DOMAIN whose RLC size is changed:

3> if the IE "Status" in the variable CIPHERING_STATUS of this CN domain is set to "Started":

4> if the information causing the RLC re-establishment was included in system information:

5> set the HFN values for the corresponding RLC entity equal to the value of the IE "START" for this CN domain that will be included in the CELL UPDATE message following cell reselection.

NOTE: Since the UE cannot predict the START value at the time of the next CELL UPDATE transmission in the future, UTRAN should desist from changing the RLC size for a signalling radio bearer within a cell. Other than this case the change in RLC size for a signalling radio bearer is known to the UE when reading system information following cell reselection.

4> if the RLC re-establishment is caused by a CELL UPDATE CONFIRM:

5> set the HFN values for the corresponding RLC entity equal to the value of the IE "START" included in the latest transmitted CELL UPDATE message for this CN domain.

4> if the RLC re-establishment is caused by a reconfiguration message:

5> set the HFN values for the corresponding RLC entity equal to the value of the IE "START" that will be included in the reconfiguration complete message for this CN domain.

1> if that RB is using UM:

2> indicate the largest applicable RLC size to the corresponding RLC entity.

1> configure MAC multiplexing according to the selected multiplexing option (MAC multiplexing shall only be configured for a logical channel if the transport channel it is mapped on according to the selected multiplexing option is the same as the transport channel another logical channel is mapped on according to the multiplexing option selected for it);

1> configure the MAC with the logical channel priorities according to selected multiplexing option;

1> configure the MAC with the set of applicable RLC Sizes for each of the logical channels used for that RB;

1> if there is no multiplexing option applicable for the transport channels to be used:

2> set the variable INVALID_CONFIGURATION to TRUE.

1> if there is more than one multiplexing option applicable for the transport channels to be used:

2> set the variable INVALID_CONFIGURATION to TRUE.

8.6.4.8 RB mapping info

If the IE "RB mapping info" is included, the UE shall:

1> for each multiplexing option of the RB:

2> if a transport channel that would not exist as a result of the message (i.e. removed in the same message in IE "Deleted DL TrCH information" and IE "Deleted UL TrCH information") is referred to:

3> set the variable INVALID_CONFIGURATION to TRUE.

2> if a multiplexing option that maps a logical channel corresponding to a TM-RLC entity onto RACH, CPCH, FACH or DSCH is included:

3> set the variable INVALID_CONFIGURATION to TRUE.

2> if the multiplexing option realises the radio bearer on the uplink (resp. on the downlink) using two logical channels with different values of the IE "Uplink transport channel type" (resp. of the IE "Downlink transport channel type"):

3> set the variable INVALID_CONFIGURATION to TRUE.

2> if that RB is using TM and the IE "Segmentation indication" is set to TRUE and, based on the multiplexing configuration resulting from this message, the logical channel corresponding to it is mapped onto the same transport channel as another logical channel:

3> set the variable INVALID_CONFIGURATION to TRUE.

2> if the transport channel considered in that multiplexing option is different from RACH and if that RB is using AM and the set of RLC sizes applicable to the logical channel transferring data PDUs has more than one element not equal to zero:

3> set the variable INVALID_CONFIGURATION to TRUE.

2> if that RB is using UM or TM and the multiplexing option realises it using two logical channels:

3> set the variable INVALID_CONFIGURATION to TRUE.

2> for each logical channel in that multiplexing option:

3> if the value of the IE "RLC size list" is set to "Explicit list":

4> if a "Transport format set" for the transport channel this logical channel is mapped on in this multiplexing option is included in the same message, and the value (index) of any IE "RLC size index" in the IE "Explicit list" does not correspond to an "RLC size" in the IE transport format set of that transport channel given in the message; or

4> if the transport channel this logical channel is mapped on in this multiplexing option is different from RACH, and if a "Transport format set" for that transport channel is not included in the same message, and the value (index) of any IE "RLC size index" in the IE "Explicit list" does not correspond to an "RLC size" in the stored transport format set of that transport channel; or

4> if a "Transport format set" for the transport channel this logical channel is mapped on in this multiplexing option is included in the same message, and the value of any IE "Logical channel list" in the transport format set is not set to "Configured"; or

4> if a "Transport format set" for the transport channel this logical channel is mapped on in this multiplexing option is not included in the same message, and the value of any IE "Logical channel list" in the stored transport format set of that transport channel is not set to "Configured":

5> set the variable INVALID_CONFIGURATION to TRUE.

3> if the value of the IE "RLC size list" is set to "All":

4> if the transport channel this logical channel is mapped on is RACH; or

4> if a "Transport format set" for the transport channel this logical channel is mapped on in this multiplexing option is included in the same message, and the value of any IE "Logical channel list" in the transport format set is not set to "Configured"; or

4> if a "Transport format set" for the transport channel this logical channel is mapped on in this multiplexing option is not included in the same message, and the value of any IE "Logical channel list" in the stored transport format set of that transport channel is not set to "Configured":

5> set the variable INVALID_CONFIGURATION to TRUE.

3> if the value of the IE "RLC size list" is set to "Configured":

4> if the transport channel this logical channel is mapped on is RACH; or

4> if a "Transport format set" for the transport channel this logical channel is mapped on in this multiplexing option is included in the same message, and for none of the RLC sizes defined for that transport channel in the "Transport format set", the "Logical Channel List" is set to "All" or given as an "Explicit List" which contains this logical channel; or

4> if a "Transport format set" for the transport channel this logical channel is mapped on in this multiplexing option is not included in the same message, and for none of the RLC sizes defined in the transport format set stored for that transport channel, the "Logical Channel List" is set to "All" or given as an "Explicit List" which contains this logical channel:

5> set the variable INVALID_CONFIGURATION to TRUE.

1> if, as a result of the message this IE is included in, several radio bearers can be mapped onto the same transport channel, and the IE "Logical Channel Identity" was not included in the RB mapping info of any of those radio bearers for a multiplexing option on that transport channel or the same "Logical Channel Identity" was used more than once in the RB mapping info of those radio bearers for the multiplexing options on that transport channel:

2> set the variable INVALID_CONFIGURATION to TRUE.

1> if the “RB mapping info” is considered as valid according to the rules above:

2~~1~~> delete all previously stored multiplexing options for that radio bearer;

2~~1~~> store each new multiplexing option for that radio bearer;

2> perform the actions as specified in subclause 8.5.21;

1> if the IE "Uplink transport channel type" is set to the value "RACH":

2> refer the IE "RLC size index" to the RACH Transport Format Set of the first PRACH received in the IE "PRACH system information list" received in System Information Block type 5 or System Information Block type 6.

~~1> determine the sets of RLC sizes that apply to the logical channels used by that RB, based on the IEs "RLC size list" and/or the IEs "Logical Channel List" included in the applicable "Transport format set" (either the ones received in the same message or the ones stored if none were received); and~~

~~1> in case the selected multiplexing option is a multiplexing option on RACH:~~

~~2> ignore the RLC size indexes that do not correspond to any RLC size within the Transport Format Set stored for RACH.~~

~~1> if RACH is the transport channel to be used on the uplink, if that RB has a multiplexing option on RACH and if it is using AM:~~

~~2> apply the largest size amongst the ones derived according to the previous bullet for the RLC size (or RLC sizes in case the RB is realised using two logical channels) for the corresponding RLC entity.~~

~~NOTE: The IE "RB mapping info" is only included in IE "Predefined RB configurations" in system information when used for Inter-RAT handover to UTRAN and there is no AM RLC size change involved in this case.~~

~~1> if that RB is using AM and the RLC size applicable to the logical channel transporting data PDUs is different from the one derived from the previously stored configuration:~~

~~2> re-establish the corresponding RLC entity;~~

~~2> configure the corresponding RLC entity with the new RLC size;~~

~~2> for each AM RLC radio bearer in the CN domain as indicated in the IE "CN domain identity" in the IE "RAB info" in the variable ESTABLISHED_RABS whose RLC size is changed; and~~

~~2> for each AM RLC signalling radio bearer in the CN domain as indicated in the IE "CN domain identity" in the variable LATEST_CONFIGURED_CN_DOMAIN whose RLC size is changed:~~

~~3> if the IE "Status" in the variable CIPHERING_STATUS of this CN domain is set to "Started":~~

~~4> if this IE was included in CELL UPDATE CONFIRM:~~

~~5> set the HFN values for the corresponding RLC entity equal to the value of the IE "START" included in the latest transmitted CELL UPDATE message for this CN domain.~~

~~4> if this IE was included in a reconfiguration message:~~

~~5> set the HFN values for the corresponding RLC entity equal to the value of the IE "START" that will be included in the reconfiguration complete message for this CN domain.~~

~~1> if that RB is using UM:~~

~~2> indicate the largest applicable RLC size to the corresponding RLC entity.~~

~~1> configure MAC multiplexing according to the selected multiplexing option (MAC multiplexing shall only be configured for a logical channel if the transport channel it is mapped on according to the selected multiplexing option is the same as the transport channel another logical channel is mapped on according to the multiplexing option selected for it);~~

~~1> configure the MAC with the logical channel priorities according to selected multiplexing option;~~

~~1> configure the MAC with the set of applicable RLC Sizes for each of the logical channels used for that RB;~~

~~1> if there is no multiplexing option applicable for the transport channels to be used in the RRC state indicated in the IE "RRC State Indicator" included in the received message:~~

~~2> set the variable INVALID_CONFIGURATION to TRUE.~~

~~1> if there is more than one multiplexing option applicable for the transport channels to be used in the RRC state indicated in the IE "RRC State Indicator" included in the received message:~~

~~2> set the variable INVALID_CONFIGURATION to TRUE.~~

In case IE "RLC info" includes IE "Downlink RLC mode " ("DL RLC logical channel info" is mandatory present) but IE "Number of downlink RLC logical channels" is absent in the corresponding IE "RB mapping info", the parameter values are exactly the same as for the corresponding UL logical channels. In case two multiplexing options are specified for the UL, the first options shall be used as default for the DL. As regards the IE "Channel type", the following rule should be applied to derive the DL channel type from the UL channel included in the IE:

Channel used in UL	DL channel type implied by "same as"
DCH	DCH
RACH	FACH
CPCH	FACH
USCH	DSCH

If ciphering is applied, UTRAN should not map Transparent Mode RBs of different CN domains on the same transport channel. In such case the UE behaviour is not specified.

8.6.5.1 Transport Format Set

If the IE "Transport format set" is included, the UE shall:

1> if the transport format set is a RACH TFS received in System Information Block type 5 or 6, and CHOICE "Logical Channel List" has a value different from "Configured":

2> ignore that System Information Block.

1> if the transport format set for a downlink transport channel is received in a System Information Block, and CHOICE "Logical Channel List" has a value different from 'ALL':

2> ignore that System Information Block.

1> if the transport format set for a downlink transport channel is received in a message on a DCCH, and CHOICE "Logical Channel List" has a value different from 'ALL':

2> keep the transport format set if this exists for that transport channel;

2> set the variable INVALID_CONFIGURATION to TRUE.

1> if the value of any IE "RB identity" (and "Logical Channel" for RBs using two UL logical channels) in the IE "Logical channel list" does not correspond to a logical channel indicated to be mapped onto this transport channel in any RB multiplexing option (either included in the same message or previously stored and not changed by this message); or

1> if the "Logical Channel List" for any of the RLC sizes defined for that transport channel is set to "Configured" while it is set to "All" or given as an "Explicit List" for any other RLC size; or

1> if the "Logical Channel List" for any of the RLC sizes defined for that transport channel is set to "All" and for any logical channel mapped to this transport channel, the value of the "RLC size list" (either provided in the IE "RB mapping info" if included in the same message, or stored) is not set to "Configured"; or

1> if the "Logical Channel List" for any of the RLC sizes defined for that transport channel is given as an "Explicit List" that contains a logical channel for which the value of the "RLC size list" (either provided in the IE "RB mapping info" if included in the same message, or stored) is not set to "Configured"; or

1> if the "Logical Channel List" for all the RLC sizes defined for that transport channel are given as "Explicit List" and if one of the logical channels mapped onto this transport channel is not included in any of those lists; or

1> if the "Logical Channel List" for the RLC sizes defined for that transport channel is set to "Configured" and for any logical channel mapped onto that transport channel, the value of the "RLC size list" (either provided in the IE "RB mapping info" if included in the same message, or stored) is also set to "Configured"; or

1> if the IE "Transport Format Set" was not received within the IE "PRACH system information list" and if the "Logical Channel List" for the RLC sizes defined for that transport channel is set to "Configured" and for any logical channel mapped onto that transport channel, the "RLC size list" (either provided in the IE "RB mapping info" if included in the same message, or stored) is given as an "Explicit List" that includes an "RLC size index" that does not correspond to any RLC size in this "Transport Format Set"~~:~~; or

1> if the IE "Transport Format Set" was not received within the IE "PRACH system information list", and if that RB is using AM and the set of RLC sizes applicable to the logical channel transferring data PDUs has more than one element not equal to zero:

2> keep the transport format set if this exists for that transport channel;

2> set the variable INVALID_CONFIGURATION to TRUE.

1> if the total number of configured transport formats for the transport channel exceeds maxTF:

2> keep the transport format set if this exists for that transport channel;

2> set the variable INVALID_CONFIGURATION to TRUE.

1> if the IE "Transport format set" is considered as valid according to the rules above:

2> remove a previously stored transport format set if this exists for that transport channel;

2> store the transport format set for that transport channel;

2> consider the first instance of the parameter *Number of TBs and TTI List* within the *Dynamic transport format information* to correspond to transport format 0 for this transport channel, the second to transport format 1 and so on;

2> if the IE "Transport format Set" has the choice "Transport channel type" set to "Dedicated transport channel":

3> calculate the transport block size for all transport formats in the TFS using the following

TB size = RLC size + MAC header size , if "RLC size" <> 0

TB size = 0 , if "RLC size" = 0 .

where:

- MAC header size is calculated according to [15] if MAC multiplexing is used. Otherwise it is 0 bits;
- 'RLC size' reflects the RLC PDU size.

2> if the IE "Transport format Set" has the choice "Transport channel type" set to "Common transport channel":

3> calculate the transport block size for all transport formats in the TFS using the following:

TB size = RLC size.

2> if the IE "Number of Transport blocks" <> 0 and IE "RLC size" = 0, no RLC PDU data exists but only parity bits exist for that transport format;

2> if the IE "Number of Transport blocks" = 0, neither RLC PDU neither data nor parity bits exist for that transport format;

2> perform the actions as specified in subclause 8.5.21;

~~2> configure the MAC with the new transport format set (with computed transport block sizes) for that transport channel;~~

~~2> if the RB multiplexing option for a RB mapped onto that transport channel (based on the stored RB multiplexing option) is not modified by this message:~~

~~3> determine the sets of RLC sizes that apply to the logical channels used by that RB, based on the IE "Logical Channel List" and/or the IE "RLC Size List" from the previously stored RB multiplexing option.~~

~~3> if the IE "Transport Format Set" was received within the IE "PRACH system information list":~~

~~4> ignore the RLC size indexes in the stored RB multiplexing option that do not correspond to any RLC size in the received Transport Format Set.~~

~~3> if the IE "Transport Format Set" was received within the IE "PRACH system information list", if that RB is using AM and if RACH is the transport channel to be used on the uplink:~~

~~4> apply the largest size amongst the ones derived according to the previous bullet for the RLC size (or RLC sizes in case the RB is realised using two logical channels) for the corresponding RLC entity.~~

~~3> if the IE "Transport Format Set" was not received within the IE "PRACH system information list", and if that RB is using AM and the set of RLC sizes applicable to the logical channel transferring data PDUs has more than one element:~~

~~4> set the variable INVALID_CONFIGURATION to true.~~

~~3> if that RB is using AM and the RLC size applicable to the logical channel transporting data PDUs is different from the one derived from the previously stored configuration:~~

~~4> re-establish the corresponding RLC entity;~~

~~4> configure the corresponding RLC entity with the new RLC size;~~

~~4> for each AM RLC radio bearer in the CN domain as indicated in the IE "CN domain identity" in the IE "RAB info" in the variable ESTABLISHED_RABS whose RLC size is changed; and~~

~~4> for each AM RLC signalling radio bearer in the CN domain as indicated in the IE "CN domain identity" in the variable LATEST_CONFIGURED_CN_DOMAIN whose RLC size is changed:~~

~~5> if this IE was included in system information and if the IE "Status" in variable CIPHERING_STATUS of this CN domain is set to "Started":~~

~~6> set the HFN values for the corresponding RLC entity equal to the value of the IE "START" for this CN domain that will be included in the CELL UPDATE message following cell reselection.~~

~~NOTE: Since the UE cannot predict the START value at the time of the next CELL UPDATE transmission in the future, UTRAN should desist from changing the RLC size for a signalling radio bearer within a cell. Other than this case the change in RLC size for a signalling radio bearer is known to the UE when reading system information following cell reselection.~~

~~5> if this IE was included in CELL UPDATE CONFIRM and if the IE "Status" in the variable CIPHERING_STATUS of this CN domain is set to "Started":~~

~~6> set the HFN values for the corresponding RLC entity equal to the value of the IE "START" included in the latest transmitted CELL UPDATE message for this CN domain.~~

~~5> if this IE was included in ACTIVE SET UPDATE and if the IE "Status" in the variable CIPHERING_STATUS of this CN domain is set to "Started":~~

~~6> set the HFN values for the corresponding RLC entity equal to the value of the IE "START" that will be included in the ACTIVE SET UPDATE COMPLETE message for this CN domain.~~

~~3> if that RB is using UM:~~

~~4> indicate the largest applicable RLC size to the corresponding RLC entity.~~

~~3> configure MAC with the set of applicable RLC Sizes for each of the logical channels used for that RB.~~

For configuration restrictions on Blind Transport Format Detection, see [27].

TSG-RAN Working Group 2 meeting #33 **R2-023256**
Sophia-Antipolis, France 12th – 15rd November 2002

CR-Form-v7

CHANGE REQUEST

⌘ **25.331** **CR** **1756** ⌘ **rev** **1** ⌘ Current version: **4.7.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ [ ] ME [X] Radio Access Network [X] Core Network [ ]

Title:	⌘	Handling of RB mapping
Source:	⌘	Ericsson
Work item code:	⌘	TEI
Date:	⌘	October 2002
Category:	⌘	**A**
Release:	⌘	Rel-4

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change: ⌘ 1) In the current specification, it is not clear that the actions currently indicated to be applicable on receipt of the IE "RB mapping info" or the IE "Transport Format Set" in section 8, also have to be executed at certain other occasions like cell reselection and state transitions. This CR attempts to clarify this behaviour.

2) It is erroneously stated that the TFS of an AM RLC not on RACH may only contain one RLC size. The text should indicate that the TFS can only include 1 RLC size not equal to zero.

3) The specification is ambiguous regarding if an RLC size of 0 corresponds to a TB size of 0 (see R2-022987)

Summary of change: ⌘ 1) A new section has been created in which functionality that also has to be executed at cell reselection or state transition, is copied from the sections on the handling of the IEs RB mapping info" and "Transport Format Set".

2) Clarification is made in 8.6.4.8

3) Related formula is made consistent with the text in the same section (8.6.5.1)

T1 impact:
No impact on T1 specifications is foreseen.

Impact analysis:
Impacted functionality: RB mapping

A UE not implementing this CR and having assumed the incorrect behaviour might not perform certain required actions related to logical channel <->transport

		channel mapping at state transitions and cell reselection. A UTRAN not implementing this CR and having assumed the incorrect behaviour will not use the indicated functionality. Clarification of a function where the specification is ambiguous. Does not affect implementations behaving like indicated in the CR, would affect implementations supporting the corrected functionality otherwise
Consequences if not approved:	⌘	If this CR is not approved, UE and UTRAN might have a different assumption on the applicable RB mapping which may lead to continuous demultiplexing problems and dropped calls.

Clauses affected:	⌘	8.5.21 (new); 8.6.4.8; 8.6.5.1			
		Y	**N**		
Other specs Affected:	⌘		**X**	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

How to create CRs using this form:
Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

8.5.21 Actions related to Radio Bearer mapping

When the UE receives the IE “RB mapping info” and/or the IE “Transport format set”, when the UE performs cell reselection or a state transition, or when the UE releases a RB, the UE shall for each of the configured Radio Bearers:

1> configure the MAC with the appropriate transport format set (with computed transport block sizes) for the transport channel used by that RB;

1> determine the sets of RLC sizes that apply to the logical channels used by that RB, based on the IEs "RLC size list" and/or the IEs "Logical Channel List" included in the applicable "Transport format set" (either the ones received in the same message or the ones stored if non were received);

1> in case the selected multiplexing option is a multiplexing option on RACH:

2> ignore the RLC size indexes that do not correspond to any RLC size within the Transport Format Set stored for RACH.

1> if RACH is the transport channel to be used on the uplink, if that RB has a multiplexing option on RACH and if it is using AM:

2> apply the largest size amongst the ones derived according to the previous bullet for the RLC size (or RLC sizes in case the RB is realised using two logical channels) for the corresponding RLC entity.

NOTE: The IE "RB mapping info" is only included in IE "Predefined RB configurations" in system information when used for Inter-RAT handover to UTRAN and there is no AM RLC size change involved in this case.

1> if that RB is using AM and the RLC size applicable to the logical channel transporting data PDUs is different from the one derived from the previously stored configuration:

2> re-establish the corresponding RLC entity;

2> configure the corresponding RLC entity with the new RLC size;

2> for each AM RLC radio bearer in the CN domain as indicated in the IE "CN domain identity" in the IE "RAB info" in the variable ESTABLISHED_RABS whose RLC size is changed; and

2> for each AM RLC signalling radio bearer in the CN domain as indicated in the IE "CN domain identity" in the variable LATEST_CONFIGURED_CN_DOMAIN whose RLC size is changed:

3> if the IE "Status" in the variable CIPHERING_STATUS of this CN domain is set to "Started":

4> if the information causing the RLC re-establishment was included in system information:

5> set the HFN values for the corresponding RLC entity equal to the value of the IE "START" for this CN domain that will be included in the CELL UPDATE message following cell reselection.

NOTE: Since the UE cannot predict the START value at the time of the next CELL UPDATE transmission in the future, UTRAN should desist from changing the RLC size for a signalling radio bearer within a cell. Other than this case the change in RLC size for a signalling radio bearer is known to the UE when reading system information following cell reselection.

4> if the RLC re-establishment is caused by a CELL UPDATE CONFIRM:

5> set the HFN values for the corresponding RLC entity equal to the value of the IE "START" included in the latest transmitted CELL UPDATE message for this CN domain.

4> if the RLC re-establishment is caused by a reconfiguration message:

5> set the HFN values for the corresponding RLC entity equal to the value of the IE "START" that will be included in the reconfiguration complete message for this CN domain.

1> if that RB is using UM:

2> indicate the largest applicable RLC size to the corresponding RLC entity.

1> configure MAC multiplexing according to the selected multiplexing option (MAC multiplexing shall only be configured for a logical channel if the transport channel it is mapped on according to the selected multiplexing option is the same as the transport channel another logical channel is mapped on according to the multiplexing option selected for it);

1> configure the MAC with the logical channel priorities according to selected multiplexing option;

1> configure the MAC with the set of applicable RLC Sizes for each of the logical channels used for that RB;

1> if there is no multiplexing option applicable for the transport channels to be used:

2> set the variable INVALID_CONFIGURATION to TRUE.

1> if there is more than one multiplexing option applicable for the transport channels to be used:

2> set the variable INVALID_CONFIGURATION to TRUE.

8.6.4.8 RB mapping info

If the IE "RB mapping info" is included, the UE shall:

1> for each multiplexing option of the RB:

2> if a transport channel that would not exist as a result of the message (i.e. removed in the same message in IE "Deleted DL TrCH information" and IE "Deleted UL TrCH information") is referred to:

3> set the variable INVALID_CONFIGURATION to TRUE.

2> if a multiplexing option that maps a logical channel corresponding to a TM-RLC entity onto RACH, CPCH, FACH or DSCH is included:

3> set the variable INVALID_CONFIGURATION to TRUE.

2> if the multiplexing option realises the radio bearer on the uplink (resp. on the downlink) using two logical channels with different values of the IE "Uplink transport channel type" (resp. of the IE "Downlink transport channel type"):

3> set the variable INVALID_CONFIGURATION to TRUE.

2> if that RB is using TM and the IE "Segmentation indication" is set to TRUE and, based on the multiplexing configuration resulting from this message, the logical channel corresponding to it is mapped onto the same transport channel as another logical channel:

3> set the variable INVALID_CONFIGURATION to TRUE.

2> if the transport channel considered in that multiplexing option is different from RACH and if that RB is using AM and the set of RLC sizes applicable to the logical channel transferring data PDUs has more than one element not equal to zero:

3> set the variable INVALID_CONFIGURATION to TRUE.

2> if that RB is using UM or TM and the multiplexing option realises it using two logical channels:

3> set the variable INVALID_CONFIGURATION to TRUE.

2> for each logical channel in that multiplexing option:

3> if the value of the IE "RLC size list" is set to "Explicit list":

4> if a "Transport format set" for the transport channel this logical channel is mapped on in this multiplexing option is included in the same message, and the value (index) of any IE "RLC size index" in the IE "Explicit list" does not correspond to an "RLC size" in the IE transport format set of that transport channel given in the message; or

4> if the transport channel this logical channel is mapped on in this multiplexing option is different from RACH, and if a "Transport format set" for that transport channel is not included in the same message, and the value (index) of any IE "RLC size index" in the IE "Explicit list" does not correspond to an "RLC size" in the stored transport format set of that transport channel; or

4> if a "Transport format set" for the transport channel this logical channel is mapped on in this multiplexing option is included in the same message, and the value of any IE "Logical channel list" in the transport format set is not set to "Configured"; or

4> if a "Transport format set" for the transport channel this logical channel is mapped on in this multiplexing option is not included in the same message, and the value of any IE "Logical channel list" in the stored transport format set of that transport channel is not set to "Configured":

5> set the variable INVALID_CONFIGURATION to TRUE.

3> if the value of the IE "RLC size list" is set to "All":

4> if the transport channel this logical channel is mapped on is RACH; or

4> if a "Transport format set" for the transport channel this logical channel is mapped on in this multiplexing option is included in the same message, and the value of any IE "Logical channel list" in the transport format set is not set to "Configured"; or

4> if a "Transport format set" for the transport channel this logical channel is mapped on in this multiplexing option is not included in the same message, and the value of any IE "Logical channel list" in the stored transport format set of that transport channel is not set to "Configured":

5> set the variable INVALID_CONFIGURATION to TRUE.

3> if the value of the IE "RLC size list" is set to "Configured":

4> if the transport channel this logical channel is mapped on is RACH; or

4> if a "Transport format set" for the transport channel this logical channel is mapped on in this multiplexing option is included in the same message, and for none of the RLC sizes defined for that transport channel in the "Transport format set", the "Logical Channel List" is set to "All" or given as an "Explicit List" which contains this logical channel; or

4> if a "Transport format set" for the transport channel this logical channel is mapped on in this multiplexing option is not included in the same message, and for none of the RLC sizes defined in the transport format set stored for that transport channel, the "Logical Channel List" is set to "All" or given as an "Explicit List" which contains this logical channel:

5> set the variable INVALID_CONFIGURATION to TRUE.

1> if, as a result of the message this IE is included in, several radio bearers can be mapped onto the same transport channel, and the IE "Logical Channel Identity" was not included in the RB mapping info of any of those radio bearers for a multiplexing option on that transport channel or the same "Logical Channel Identity" was used more than once in the RB mapping info of those radio bearers for the multiplexing options on that transport channel:

2> set the variable INVALID_CONFIGURATION to TRUE.

1> if the “RB mapping info” is considered as valid according to the rules above:

2~~1~~> delete all previously stored multiplexing options for that radio bearer;

2~~1~~> store each new multiplexing option for that radio bearer;

2> perform the actions as specified in subclause 8.5.21;

1> if the IE "Uplink transport channel type" is set to the value "RACH":

2> refer the IE "RLC size index" to the RACH Transport Format Set of the first PRACH received in the IE "PRACH system information list" received in System Information Block type 5 or System Information Block type 6.

~~1> determine the sets of RLC sizes that apply to the logical channels used by that RB, based on the IEs "RLC size list" and/or the IEs "Logical Channel List" included in the applicable "Transport format set" (either the ones received in the same message or the ones stored if none were received); and~~

~~1> in case the selected multiplexing option is a multiplexing option on RACH:~~

~~2> ignore the RLC size indexes that do not correspond to any RLC size within the Transport Format Set stored for RACH.~~

~~1> if RACH is the transport channel to be used on the uplink, if that RB has a multiplexing option on RACH and if it is using AM:~~

~~2> apply the largest size amongst the ones derived according to the previous bullet for the RLC size (or RLC sizes in case the RB is realised using two logical channels) for the corresponding RLC entity.~~

~~NOTE: The IE "RB mapping info" is only included in IE "Predefined RB configurations" in system information when used for Inter-RAT handover to UTRAN and there is no AM RLC size change involved in this case.~~

~~1> if that RB is using AM and the RLC size applicable to the logical channel transporting data PDUs is different from the one derived from the previously stored configuration:~~

~~2> re-establish the corresponding RLC entity;~~

~~2> configure the corresponding RLC entity with the new RLC size;~~

~~2> for each AM RLC radio bearer in the CN domain as indicated in the IE "CN domain identity" in the IE "RAB info" in the variable ESTABLISHED_RABS whose RLC size is changed; and~~

~~2> for each AM RLC signalling radio bearer in the CN domain as indicated in the IE "CN domain identity" in the variable LATEST_CONFIGURED_CN_DOMAIN whose RLC size is changed:~~

~~3> if the IE "Status" in the variable CIPHERING_STATUS of this CN domain is set to "Started":~~

~~4> if this IE was included in CELL UPDATE CONFIRM:~~

~~5> set the HFN values for the corresponding RLC entity equal to the value of the IE "START" included in the latest transmitted CELL UPDATE message for this CN domain.~~

~~4> if this IE was included in a reconfiguration message:~~

~~5> set the HFN values for the corresponding RLC entity equal to the value of the IE "START" that will be included in the reconfiguration complete message for this CN domain.~~

~~1> if that RB is using UM:~~

~~2> indicate the largest applicable RLC size to the corresponding RLC entity.~~

~~1> configure MAC multiplexing according to the selected multiplexing option (MAC multiplexing shall only be configured for a logical channel if the transport channel it is mapped on according to the selected multiplexing option is the same as the transport channel another logical channel is mapped on according to the multiplexing option selected for it);~~

~~1> configure the MAC with the logical channel priorities according to selected multiplexing option;~~

~~1> configure the MAC with the set of applicable RLC Sizes for each of the logical channels used for that RB;~~

~~1> if there is no multiplexing option applicable for the transport channels to be used in the RRC state indicated in the IE "RRC State Indicator" included in the received message:~~

~~2> set the variable INVALID_CONFIGURATION to TRUE.~~

~~1> if there is more than one multiplexing option applicable for the transport channels to be used in the RRC state indicated in the IE "RRC State Indicator" included in the received message:~~

~~2> set the variable INVALID_CONFIGURATION to TRUE.~~

In case IE "RLC info" includes IE "Downlink RLC mode " ("DL RLC logical channel info" is mandatory present) but IE "Number of downlink RLC logical channels" is absent in the corresponding IE "RB mapping info", the parameter values are exactly the same as for the corresponding UL logical channels. In case two multiplexing options are specified for the UL, the first options shall be used as default for the DL. As regards the IE "Channel type", the following rule should be applied to derive the DL channel type from the UL channel included in the IE:

Channel used in UL	**DL channel type implied by "same as"**
DCH	DCH
RACH	FACH
CPCH	FACH
USCH	DSCH

If ciphering is applied, UTRAN should not map Transparent Mode RBs of different CN domains on the same transport channel and it should not map transparent mode SRBs and RBs onto the same transport channel. In such case the UE behaviour is not specified.

8.6.5.1 Transport Format Set

If the IE "Transport format set" is included, the UE shall:

1> if the transport format set is a RACH TFS received in System Information Block type 5 or 6, and CHOICE "Logical Channel List" has a value different from "Configured":

2> ignore that System Information Block.

1> if the transport format set for a downlink transport channel is received in a System Information Block, and CHOICE "Logical Channel List" has a value different from 'ALL':

2> ignore that System Information Block.

1> if the transport format set for a downlink transport channel is received in a message on a DCCH, and CHOICE "Logical Channel List" has a value different from 'ALL':

2> keep the transport format set if this exists for that transport channel;

2> set the variable INVALID_CONFIGURATION to TRUE.

1> if the value of any IE "RB identity" (and "Logical Channel" for RBs using two UL logical channels) in the IE "Logical channel list" does not correspond to a logical channel indicated to be mapped onto this transport channel in any RB multiplexing option (either included in the same message or previously stored and not changed by this message); or

1> if the "Logical Channel List" for any of the RLC sizes defined for that transport channel is set to "Configured" while it is set to "All" or given as an "Explicit List" for any other RLC size; or

1> if the "Logical Channel List" for any of the RLC sizes defined for that transport channel is set to "All" and for any logical channel mapped to this transport channel, the value of the "RLC size list" (either provided in the IE "RB mapping info" if included in the same message, or stored) is not set to "Configured"; or

1> if the "Logical Channel List" for any of the RLC sizes defined for that transport channel is given as an "Explicit List" that contains a logical channel for which the value of the "RLC size list" (either provided in the IE "RB mapping info" if included in the same message, or stored) is not set to "Configured"; or

1> if the "Logical Channel List" for all the RLC sizes defined for that transport channel are given as "Explicit List" and if one of the logical channels mapped onto this transport channel is not included in any of those lists; or

1> if the "Logical Channel List" for the RLC sizes defined for that transport channel is set to "Configured" and for any logical channel mapped onto that transport channel, the value of the "RLC size list" (either provided in the IE "RB mapping info" if included in the same message, or stored) is also set to "Configured"; or

1> if the IE "Transport Format Set" was not received within the IE "PRACH system information list" and if the "Logical Channel List" for the RLC sizes defined for that transport channel is set to "Configured" and for any logical channel mapped onto that transport channel, the "RLC size list" (either provided in the IE "RB mapping info" if included in the same message, or stored) is given as an "Explicit List" that includes an "RLC size index" that does not correspond to any RLC size in this "Transport Format Set"~~:~~; or

1> if the IE "Transport Format Set" was not received within the IE "PRACH system information list", and if that RB is using AM and the set of RLC sizes applicable to the logical channel transferring data PDUs has more than one element not equal to zero:

2> keep the transport format set if this exists for that transport channel;

2> set the variable INVALID_CONFIGURATION to TRUE.

1> if the total number of configured transport formats for the transport channel exceeds maxTF:

2> keep the transport format set if this exists for that transport channel;

2> set the variable INVALID_CONFIGURATION to TRUE.

1> if the IE "Transport format set" is considered as valid according to the rules above:

2> remove a previously stored transport format set if this exists for that transport channel;

2> store the transport format set for that transport channel;

2> consider the first instance of the parameter *Number of TBs and TTI List* within the *Dynamic transport format information* to correspond to transport format 0 for this transport channel, the second to transport format 1 and so on;

2> if the IE "Transport format Set" has the choice "Transport channel type" set to "Dedicated transport channel":

3> calculate the transport block size for all transport formats in the TFS using the following

TB size = RLC size + MAC header size , if "RLC size" <> 0

TB size = 0 , if "RLC size" = 0 .

where:

- MAC header size is calculated according to [15] if MAC multiplexing is used. Otherwise it is 0 bits;
- 'RLC size' reflects the RLC PDU size.

2> if the IE "Transport format Set" has the choice "Transport channel type" set to "Common transport channel":

3> calculate the transport block size for all transport formats in the TFS using the following:

TB size = RLC size.

2> if the IE "Number of Transport blocks" <> 0 and IE "RLC size" = 0, no RLC PDU data exists but only parity bits exist for that transport format;

2> if the IE "Number of Transport blocks" = 0, neither RLC PDU neither data nor parity bits exist for that transport format;

2> perform the actions as specified in subclause 8.5.21;

~~2> configure the MAC with the new transport format set (with computed transport block sizes) for that transport channel;~~

~~2> if the RB multiplexing option for a RB mapped onto that transport channel (based on the stored RB multiplexing option) is not modified by this message:~~

~~3> determine the sets of RLC sizes that apply to the logical channels used by that RB, based on the IE "Logical Channel List" and/or the IE "RLC Size List" from the previously stored RB multiplexing option.~~

~~3> if the IE "Transport Format Set" was received within the IE "PRACH system information list":~~

~~4> ignore the RLC size indexes in the stored RB multiplexing option that do not correspond to any RLC size in the received Transport Format Set.~~

~~3> if the IE "Transport Format Set" was received within the IE "PRACH system information list", if that RB is using AM and if RACH is the transport channel to be used on the uplink:~~

~~4> apply the largest size amongst the ones derived according to the previous bullet for the RLC size (or RLC sizes in case the RB is realised using two logical channels) for the corresponding RLC entity.~~

~~3> if the IE "Transport Format Set" was not received within the IE "PRACH system information list", and if that RB is using AM and the set of RLC sizes applicable to the logical channel transferring data PDUs has more than one element:~~

~~4> set the variable INVALID_CONFIGURATION to true.~~

~~3> if that RB is using AM and the RLC size applicable to the logical channel transporting data PDUs is different from the one derived from the previously stored configuration:~~

~~4> re-establish the corresponding RLC entity;~~

~~4> configure the corresponding RLC entity with the new RLC size;~~

~~4> for each AM RLC radio bearer in the CN domain as indicated in the IE "CN domain identity" in the IE "RAB info" in the variable ESTABLISHED_RABS whose RLC size is changed; and~~

~~4> for each AM RLC signalling radio bearer in the CN domain as indicated in the IE "CN domain identity" in the variable LATEST_CONFIGURED_CN_DOMAIN whose RLC size is changed:~~

~~5> if this IE was included in system information and if the IE "Status" in variable CIPHERING_STATUS of this CN domain is set to "Started":~~

~~6> set the HFN values for the corresponding RLC entity equal to the value of the IE "START" for this CN domain that will be included in the CELL UPDATE message following cell reselection.~~

~~NOTE: Since the UE cannot predict the START value at the time of the next CELL UPDATE transmission in the future, UTRAN should desist from changing the RLC size for a signalling radio bearer within a cell. Other than this case the change in RLC size for a signalling radio bearer is known to the UE when reading system information following cell reselection.~~

~~5> if this IE was included in CELL UPDATE CONFIRM and if the IE "Status" in the variable CIPHERING_STATUS of this CN domain is set to "Started":~~

~~6> set the HFN values for the corresponding RLC entity equal to the value of the IE "START" included in the latest transmitted CELL UPDATE message for this CN domain.~~

~~5> if this IE was included in ACTIVE SET UPDATE and if the IE "Status" in the variable CIPHERING_STATUS of this CN domain is set to "Started":~~

~~6> set the HFN values for the corresponding RLC entity equal to the value of the IE "START" that will be included in the ACTIVE SET UPDATE COMPLETE message for this CN domain.~~

~~3> if that RB is using UM:~~

~~4> indicate the largest applicable RLC size to the corresponding RLC entity.~~

~~3> configure MAC with the set of applicable RLC Sizes for each of the logical channels used for that RB.~~

For configuration restrictions on Blind Transport Format Detection, see [27].

TSG-RAN Working Group 2 meeting #33 **R2-023257**
Sophia-Antipolis, France 12th – 15rd November 2002

CR-Form-v7

CHANGE REQUEST

⌘ **25.331** **CR** **1757** ⌘ **rev** **1** ⌘ Current version: **5.2.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ [ ] ME [X] Radio Access Network [X] Core Network [ ]

Title:	⌘	Handling of RB mapping
Source:	⌘	Ericsson
Work item code:	⌘	TEI
Date:	⌘	October 2002
Category:	⌘	**A**
Release:	⌘	Rel-5

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
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Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

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R96	*(Release 1996)*
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Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change: ⌘ 1) In the current specification, it is not clear that the actions currently indicated to be applicable on receipt of the IE "RB mapping info" or the IE "Transport Format Set" in section 8, also have to be executed at certain other occasions like cell reselection and state transitions. This CR attempts to clarify this behaviour.

2) It is erroneously stated that the TFS of an AM RLC not on RACH may only contain one RLC size. The text should indicate that the TFS can only include 1 RLC size not equal to zero.

3) The specification is ambiguous regarding if an RLC size of 0 corresponds to a TB size of 0 (see R2-022987)

Summary of change: ⌘ 1) A new section has been created in which functionality that also has to be executed at cell reselection or state transition, is copied from the sections on the handling of the IEs RB mapping info" and "Transport Format Set".

2) Clarification is made in 8.6.4.8

3) Related formula is made consistent with the text in the same section (8.6.5.1)

T1 impact:
No impact on T1 specifications is foreseen.

Impact analysis:
Impacted functionality: RB mapping

A UE not implementing this CR and having assumed the incorrect behaviour might not perform certain required actions related to logical channel <->transport

		channel mapping at state transitions and cell reselection. A UTRAN not implementing this CR and having assumed the incorrect behaviour will not use the indicated functionality. Clarification of a function where the specification is ambiguous. Does not affect implementations behaving like indicated in the CR, would affect implementations supporting the corrected functionality otherwise
Consequences if not approved:	⌘	If this CR is not approved, UE and UTRAN might have a different assumption on the applicable RB mapping which may lead to continuous demultiplexing problems and dropped calls.

Clauses affected:	⌘	8.5.21 (new); 8.6.4.8; 8.6.5.1			
		Y	**N**		
Other specs Affected:	⌘		**X**	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

How to create CRs using this form:
Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

8.5.21 Actions related to Radio Bearer mapping

When the UE receives the IE “RB mapping info” and/or the IE “Transport format set”, when the UE performs cell reselection or a state transition, or when the UE releases a RB, the UE shall for each of the configured Radio Bearers:

1> configure the MAC with the appropriate transport format set (with computed transport block sizes) for the transport channel used by that RB;

1> determine the sets of RLC sizes that apply to the logical channels used by that RB, based on the IEs "RLC size list" and/or the IEs "Logical Channel List" included in the applicable "Transport format set" (either the ones received in the same message or the ones stored if non were received);

1> in case the selected multiplexing option is a multiplexing option on RACH:

2> ignore the RLC size indexes that do not correspond to any RLC size within the Transport Format Set stored for RACH.

1> if RACH is the transport channel to be used on the uplink, if that RB has a multiplexing option on RACH and if it is using AM:

2> apply the largest size amongst the ones derived according to the previous bullet for the RLC size (or RLC sizes in case the RB is realised using two logical channels) for the corresponding RLC entity.

NOTE: The IE "RB mapping info" is only included in IE "Predefined RB configurations" in system information when used for Inter-RAT handover to UTRAN and there is no AM RLC size change involved in this case.

1> if that RB is using AM and the RLC size applicable to the logical channel transporting data PDUs is different from the one derived from the previously stored configuration:

2> re-establish the corresponding RLC entity;

2> configure the corresponding RLC entity with the new RLC size;

2> for each AM RLC radio bearer in the CN domain as indicated in the IE "CN domain identity" in the IE "RAB info" in the variable ESTABLISHED_RABS whose RLC size is changed; and

2> for each AM RLC signalling radio bearer in the CN domain as indicated in the IE "CN domain identity" in the variable LATEST_CONFIGURED_CN_DOMAIN whose RLC size is changed:

3> if the IE "Status" in the variable CIPHERING_STATUS of this CN domain is set to "Started":

4> if the information causing the RLC re-establishment was included in system information:

5> set the HFN values for the corresponding RLC entity equal to the value of the IE "START" for this CN domain that will be included in the CELL UPDATE message following cell reselection.

NOTE: Since the UE cannot predict the START value at the time of the next CELL UPDATE transmission in the future, UTRAN should desist from changing the RLC size for a signalling radio bearer within a cell. Other than this case the change in RLC size for a signalling radio bearer is known to the UE when reading system information following cell reselection.

4> if the RLC re-establishment is caused by a CELL UPDATE CONFIRM:

5> set the HFN values for the corresponding RLC entity equal to the value of the IE "START" included in the latest transmitted CELL UPDATE message for this CN domain.

4> if the RLC re-establishment is caused by a reconfiguration message:

5> set the HFN values for the corresponding RLC entity equal to the value of the IE "START" that will be included in the reconfiguration complete message for this CN domain.

1> if that RB is using UM:

2> indicate the largest applicable RLC size to the corresponding RLC entity.

1> configure MAC multiplexing according to the selected multiplexing option (MAC multiplexing shall only be configured for a logical channel if the transport channel it is mapped on according to the selected multiplexing option is the same as the transport channel another logical channel is mapped on according to the multiplexing option selected for it);

1> configure the MAC with the logical channel priorities according to selected multiplexing option;

1> configure the MAC with the set of applicable RLC Sizes for each of the logical channels used for that RB;

1> if there is no multiplexing option applicable for the transport channels to be used:

2> set the variable INVALID_CONFIGURATION to TRUE.

1> if there is more than one multiplexing option applicable for the transport channels to be used:

2> set the variable INVALID_CONFIGURATION to TRUE.

8.6.4.8 RB mapping info

If the IE "RB mapping info" is included, the UE shall:

1> for each multiplexing option of the RB:

2> if a transport channel that would not exist as a result of the message (i.e. removed in the same message in IE "Deleted DL TrCH information" and IE "Deleted UL TrCH information") is referred to:

3> set the variable INVALID_CONFIGURATION to TRUE.

2> if a multiplexing option that maps a logical channel corresponding to a TM-RLC entity onto RACH, CPCH, FACH or DSCH is included:

3> set the variable INVALID_CONFIGURATION to TRUE.

2> if the multiplexing option realises the radio bearer on the uplink (resp. on the downlink) using two logical channels with different values of the IE "Uplink transport channel type" (resp. of the IE "Downlink transport channel type"):

3> set the variable INVALID_CONFIGURATION to TRUE.

2> if that RB is using TM and the IE "Segmentation indication" is set to TRUE and, based on the multiplexing configuration resulting from this message, the logical channel corresponding to it is mapped onto the same transport channel as another logical channel:

3> set the variable INVALID_CONFIGURATION to TRUE.

2> if the transport channel considered in that multiplexing option is different from RACH and if that RB is using AM and the set of RLC sizes applicable to the logical channel transferring data PDUs has more than one element not equal to zero:

3> set the variable INVALID_CONFIGURATION to TRUE.

2> if that RB is using UM or TM and the multiplexing option realises it using two logical channels:

3> set the variable INVALID_CONFIGURATION to TRUE.

2> for each logical channel in that multiplexing option:

3> if the value of the IE "RLC size list" is set to "Explicit list":

4> if a "Transport format set" for the transport channel this logical channel is mapped on in this multiplexing option is included in the same message, and the value (index) of any IE "RLC size index" in the IE "Explicit list" does not correspond to an "RLC size" in the IE transport format set of that transport channel given in the message; or

4> if the transport channel this logical channel is mapped on in this multiplexing option is different from RACH, and if a "Transport format set" for that transport channel is not included in the same message, and the value (index) of any IE "RLC size index" in the IE "Explicit list" does not correspond to an "RLC size" in the stored transport format set of that transport channel; or

4> if a "Transport format set" for the transport channel this logical channel is mapped on in this multiplexing option is included in the same message, and the value of any IE "Logical channel list" in the transport format set is not set to "Configured"; or

4> if a "Transport format set" for the transport channel this logical channel is mapped on in this multiplexing option is not included in the same message, and the value of any IE "Logical channel list" in the stored transport format set of that transport channel is not set to "Configured":

5> set the variable INVALID_CONFIGURATION to TRUE.

3> if the value of the IE "RLC size list" is set to "All":

4> if the transport channel this logical channel is mapped on is RACH; or

4> if a "Transport format set" for the transport channel this logical channel is mapped on in this multiplexing option is included in the same message, and the value of any IE "Logical channel list" in the transport format set is not set to "Configured"; or

4> if a "Transport format set" for the transport channel this logical channel is mapped on in this multiplexing option is not included in the same message, and the value of any IE "Logical channel list" in the stored transport format set of that transport channel is not set to "Configured":

5> set the variable INVALID_CONFIGURATION to TRUE.

3> if the value of the IE "RLC size list" is set to "Configured":

4> if the transport channel this logical channel is mapped on is RACH; or

4> if a "Transport format set" for the transport channel this logical channel is mapped on in this multiplexing option is included in the same message, and for none of the RLC sizes defined for that transport channel in the "Transport format set", the "Logical Channel List" is set to "All" or given as an "Explicit List" which contains this logical channel; or

4> if a "Transport format set" for the transport channel this logical channel is mapped on in this multiplexing option is not included in the same message, and for none of the RLC sizes defined in the transport format set stored for that transport channel, the "Logical Channel List" is set to "All" or given as an "Explicit List" which contains this logical channel:

5> set the variable INVALID_CONFIGURATION to TRUE.

1> if, as a result of the message this IE is included in, several radio bearers can be mapped onto the same transport channel, and the IE "Logical Channel Identity" was not included in the RB mapping info of any of those radio bearers for a multiplexing option on that transport channel or the same "Logical Channel Identity" was used more than once in the RB mapping info of those radio bearers for the multiplexing options on that transport channel:

2> set the variable INVALID_CONFIGURATION to TRUE.

1> if the “RB mapping info” is considered as valid according to the rules above:

2~~1~~> delete all previously stored multiplexing options for that radio bearer;

2~~1~~> store each new multiplexing option for that radio bearer;

2> perform the actions as specified in subclause 8.5.21;

~~1> select and configure the multiplexing options applicable for the transport channels to be used;~~

1> if the IE "Uplink transport channel type" is set to the value "RACH":

2> in FDD:

3> refer the IE "RLC size index" to the RACH Transport Format Set of the first PRACH received in the IE "PRACH system information list" received in SIB5 or SIB6.

2> in TDD:

3> use the first Transport Format of the PRACH of the IE "PRACH system information list" at the position equal to the value in the IE "RLC size index".

~~1> determine the sets of RLC sizes that apply to the logical channels used by that RB, based on the IEs "RLC size list" and/or the IEs "Logical Channel List" included in the applicable "Transport format set" (either the ones received in the same message or the ones stored if none were received); and~~

~~1> in case the selected multiplexing option is a multiplexing option on RACH:~~

~~2> ignore the RLC size indexes that do not correspond to any RLC size within the Transport Format Set stored for RACH.~~

~~1> if RACH is the transport channel to be used on the uplink, if that RB has a multiplexing option on RACH and if it is using AM:~~

~~2> apply the largest size amongst the ones derived according to the previous bullet for the RLC size (or RLC sizes in case the RB is realised using two logical channels) for the corresponding RLC entity.~~

~~1> if that RB is using AM and the RLC size applicable to the logical channel transporting data PDUs is different from the one derived from the previously stored configuration:~~

~~2> re-establish the corresponding RLC entity;~~

~~2> configure the corresponding RLC entity with the new RLC size;~~

~~2> for each AM RLC radio bearer in the CN domain as indicated in the IE "CN domain identity" in the IE "RAB info" in the variable ESTABLISHED_RABS whose RLC size is changed; and~~

~~2> for each AM RLC signalling radio bearer in the CN domain as indicated in the IE "CN domain identity" in the variable LATEST_CONFIGURED_CN_DOMAIN whose RLC size is changed:~~

~~3> if the IE "Status" in the variable CIPHERING_STATUS of this CN domain is set to "Started":~~

~~4> if this IE was included in system information:~~

~~5> set the HFN values for the corresponding RLC entity equal to the value of the IE "START" for this CN domain that will be included in the CELL UPDATE message that will be sent before the next transmission.~~

~~4> if this IE was included in CELL UPDATE CONFIRM:~~

~~5> set the HFN values for the corresponding RLC entity equal to the value of the IE "START" included in the latest transmitted CELL UPDATE message for this CN domain.~~

~~4> if this IE was included in a reconfiguration message:~~

~~5> set the HFN values for the corresponding RLC entity equal to the value of the IE "START" that will be included in the reconfiguration complete message for this CN domain.~~

~~1> if that RB is using UM:~~

~~2> indicate the largest applicable RLC size to the corresponding RLC entity.~~

~~1> configure MAC multiplexing according to the selected multiplexing option (MAC multiplexing shall only be configured for a logical channel if the transport channel it is mapped on according to the selected multiplexing option is the same as the transport channel another logical channel is mapped on according to the multiplexing option selected for it);~~

~~1> configure the MAC with the logical channel priorities according to selected multiplexing option;~~

~~1> configure the MAC with the set of applicable RLC Sizes for each of the logical channels used for that RB;~~

~~1> if there is no multiplexing option applicable for the transport channels to be used:~~

~~2> set the variable INVALID_CONFIGURATION to TRUE.~~

~~1> if there is more than one multiplexing option applicable for the transport channels to be used:~~

~~2> set the variable INVALID_CONFIGURATION to TRUE.~~

In case IE "RLC info" includes IE "Downlink RLC mode " ("DL RLC logical channel info" is mandatory present) but IE "Number of downlink RLC logical channels" is absent in the corresponding IE "RB mapping info", the parameter values are exactly the same as for the corresponding UL logical channels. In case two multiplexing options are specified for the UL, the first options shall be used as default for the DL. As regards the IE "Channel type", the following rule should be applied to derive the DL channel type from the UL channel included in the IE:

Channel used in UL	DL channel type implied by "same as"
DCH	DCH
RACH	FACH
CPCH	FACH
USCH	DSCH

If ciphering is applied, UTRAN should not map Transparent Mode RBs of different CN domains on the same transport channel and it should not map transparent mode SRBs and RBs onto the same transport channel. In such case the UE behaviour is not specified.

8.6.5.1 Transport Format Set

If the IE "Transport format set" is included, the UE shall:

1> if the transport format set is a RACH TFS received in System Information Block type 5 or 6, and CHOICE "Logical Channel List" has a value different from "Configured":

2> ignore that System Information Block.

1> if the transport format set for a downlink transport channel is received in a System Information Block, and CHOICE "Logical Channel List" has a value different from 'ALL':

2> ignore that System Information Block.

1> if the transport format set for a downlink transport channel is received in a message on a DCCH, and CHOICE "Logical Channel List" has a value different from 'ALL':

2> keep the transport format set if this exists for that transport channel;

2> set the variable INVALID_CONFIGURATION to TRUE.

1> if the value of any IE "RB identity" (and "Logical Channel" for RBs using two UL logical channels) in the IE "Logical channel list" does not correspond to a logical channel indicated to be mapped onto this transport channel in any RB multiplexing option (either included in the same message or previously stored and not changed by this message); or

1> if the "Logical Channel List" for any of the RLC sizes defined for that transport channel is set to "Configured" while it is set to "All" or given as an "Explicit List" for any other RLC size; or

1> if the "Logical Channel List" for any of the RLC sizes defined for that transport channel is set to "All" and for any logical channel mapped to this transport channel, the value of the "RLC size list" (either provided in the IE "RB mapping info" if included in the same message, or stored) is not set to "Configured"; or

1> if the "Logical Channel List" for any of the RLC sizes defined for that transport channel is given as an "Explicit List" that contains a logical channel for which the value of the "RLC size list" (either provided in the IE "RB mapping info" if included in the same message, or stored) is not set to "Configured"; or

1> if the "Logical Channel List" for all the RLC sizes defined for that transport channel are given as "Explicit List" and if one of the logical channels mapped onto this transport channel is not included in any of those lists; or

1> if the "Logical Channel List" for the RLC sizes defined for that transport channel is set to "Configured" and for any logical channel mapped onto that transport channel, the value of the "RLC size list" (either provided in the IE "RB mapping info" if included in the same message, or stored) is also set to "Configured"; or

1> if the IE "Transport Format Set" was not received within the IE "PRACH system information list" and if the "Logical Channel List" for the RLC sizes defined for that transport channel is set to "Configured" and for any logical channel mapped onto that transport channel, the "RLC size list" (either provided in the IE "RB mapping info" if included in the same message, or stored) is given as an "Explicit List" that includes an "RLC size index" that does not correspond to any RLC size in this "Transport Format Set"~~:~~; or

1> if the IE "Transport Format Set" was not received within the IE "PRACH system information list", and if that RB is using AM and the set of RLC sizes applicable to the logical channel transferring data PDUs has more than one element not equal to zero:

2> keep the transport format set if this exists for that transport channel;

2> set the variable INVALID_CONFIGURATION to TRUE.

1> if the total number of configured transport formats for the transport channel exceeds maxTF:

2> keep the transport format set if this exists for that transport channel;

2> set the variable INVALID_CONFIGURATION to TRUE.

1> if the IE "Transport format set" is considered as valid according to the rules above:

2> remove a previously stored transport format set if this exists for that transport channel;

2> store the transport format set for that transport channel;

2> consider the first instance of the parameter *Number of TBs and TTI List* within the *Dynamic transport format information* to correspond to transport format 0 for this transport channel, the second to transport format 1 and so on;

2> if the IE "Transport format Set" has the choice "Transport channel type" set to "Dedicated transport channel":

3> calculate the transport block size for all transport formats in the TFS using the following

TB size = RLC size + MAC header size , if “RLC size” <> 0

TB size = 0 , if “RLC size” = 0 .

where:

- MAC header size is calculated according to [15] if MAC multiplexing is used. Otherwise it is 0 bits;
- 'RLC size' reflects the RLC PDU size.

2> if the IE "Transport format Set" has the choice "Transport channel type" set to "Common transport channel":

3> calculate the transport block size for all transport formats in the TFS using the following:

TB size = RLC size.

2> if the IE "Number of Transport blocks" <> 0 and IE "RLC size" = 0, no RLC PDU data exists but only parity bits exist for that transport format;

2> if the IE "Number of Transport blocks" = 0, neither RLC PDU neither data nor parity bits exist for that transport format;

2> perform the actions as specified in subclause 8.5.21;

~~2> configure the MAC with the new transport format set (with computed transport block sizes) for that transport channel;~~

~~2> if the RB multiplexing option for a RB mapped onto that transport channel (based on the stored RB multiplexing option) is not modified by this message:~~

~~3> determine the sets of RLC sizes that apply to the logical channels used by that RB, based on the IE "Logical Channel List" and/or the IE "RLC Size List" from the previously stored RB multiplexing option.~~

~~3> if the IE "Transport Format Set" was received within the IE "PRACH system information list":~~

~~4> ignore the RLC size indexes in the stored RB multiplexing option that do not correspond to any RLC size in the received Transport Format Set.~~

~~3> if the IE "Transport Format Set" was received within the IE "PRACH system information list", if that RB is using AM and if RACH is the transport channel to be used on the uplink:~~

~~4> apply the largest size amongst the ones derived according to the previous bullet for the RLC size (or RLC sizes in case the RB is realised using two logical channels) for the corresponding RLC entity.~~

~~3> if the IE "Transport Format Set" was not received within the IE "PRACH system information list", and if that RB is using AM and the set of RLC sizes applicable to the logical channel transferring data PDUs has more than one element:~~

~~4> set the variable INVALID_CONFIGURATION to true.~~

~~3> if that RB is using AM and the RLC size applicable to the logical channel transporting data PDUs is different from the one derived from the previously stored configuration:~~

~~4> re-establish the corresponding RLC entity;~~

~~4> configure the corresponding RLC entity with the new RLC size;~~

~~4> for each AM RLC radio bearer in the CN domain as indicated in the IE "CN domain identity" in the IE "RAB info" in the variable ESTABLISHED_RABS whose RLC size is changed; and~~

~~4> for each AM RLC signalling radio bearer in the CN domain as indicated in the IE "CN domain identity" in the variable LATEST_CONFIGURED_CN_DOMAIN whose RLC size is changed:~~

~~5> if this IE was included in system information and if the IE "Status" in variable CIPHERING_STATUS of this CN domain is set to "Started":~~

~~6> set the HFN values for the corresponding RLC entity equal to the value of the IE "START" for this CN domain that will be included in the CELL UPDATE message following cell reselection.~~

~~NOTE: Since the UE cannot predict the START value at the time of the next CELL UPDATE transmission in the future, UTRAN should desist from changing the RLC size for a signalling radio bearer within a cell. Other than this case the change in RLC size for a signalling radio bearer is known to the UE when reading system information following cell reselection.~~

~~5> if this IE was included in CELL UPDATE CONFIRM and if the IE "Status" in the variable CIPHERING_STATUS of this CN domain is set to "Started":~~

~~6> set the HFN values for the corresponding RLC entity equal to the value of the IE "START" included in the latest transmitted CELL UPDATE message for this CN domain.~~

~~5> if this IE was included in ACTIVE SET UPDATE and if the IE "Status" in the variable CIPHERING_STATUS of this CN domain is set to "Started":~~

~~6> set the HFN values for the corresponding RLC entity equal to the value of the IE "START" that will be included in the ACTIVE SET UPDATE COMPLETE message for this CN domain.~~

~~3> if that RB is using UM:~~

~~4> indicate the largest applicable RLC size to the corresponding RLC entity.~~

~~3> configure MAC with the set of applicable RLC Sizes for each of the logical channels used for that RB.~~

For configuration restrictions on Blind Transport Format Detection, see [27].

3GPP TSG-RAN2 Meeting #33
Sophia Antipolis, France, 11th-15th November 2002

Tdoc ⌘R2-023129

CR-Form-v7

CHANGE REQUEST

⌘ **25.331** **CR** **1764** ⌘ **rev** **-** ⌘ Current version: **3.12.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ [ ] ME [X] Radio Access Network [X] Core Network [ ]

Title:	⌘	RLC window size in default configurations
Source:	⌘	Ericsson
Work item code:	⌘	TEI
Date:	⌘	15 November 2002
Category:	⌘	**F**
Release:	⌘	R99

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change: ⌘ The RLC window sizes on SRB2 and SRB3 in the default configuration used at handover from GSM where discussed at WG2 #32 (see R2-022651).

The current RLC window sizes of 128 on the SRBs require 8 kbyte of RLC buffer memory. For low end UEs with 10kbyte RLC buffer memory, the remaining 2 kbyte memory is insufficient to setup SRB4 and a PS RAB.

To solve the above problem it is proposed to lower the RLC window sizes from 128 to 32 for SRB2 and SRB3 in the default configurations, for UEs with 10 kbyte RLC memory. For UEs with larger RLC buffer memory, the current values are kept.

Summary of change: ⌘ The RLC window sizes for SRB2 and SRB3 are changed from 128 to 32 for UEs with 10 kbyte memory in the default configurations used at handover from GSM.

Consequences if not approved: ⌘ If no change is made, the functionality for low end UEs with 10kbyte RLC buffer memory will be limited. Handover from GSM is possible, but a subsequent setup of SRB4 and a PS RAB will lead to significantly lower performance.

Backwards compatibility analysis:

If the CR is not implemented:

Setup of SRB4 and PS RAB after HO to GSM requires low window sizes on SRB4 and the PS RAB.

	If the CR is implemented in UTRAN but not in the UE: The communication on SRB2 and SRB3 will be inefficient due to that the RLC window sizes in UE and UTRAN are different. All RLC PDUs received outside the Rx window will be discarded but later retransmitted by RLC. This can be avoided by the UTRAN by using a window size of 32 in DL and 128 in UL, wich will handle UEs independent on if they have implemented the CR or not. **If the CR is implemented in the UE but not in UTRAN:** The communication on SRB2 and SRB3 will be inefficient due to that the RLC window sizes in UE and UTRAN are different. All RLC PDUs received outside the Rx window will be discarded but later retransmitted by RLC. This can be avoided by the UTRAN by using a window size of 32 in DL and 128 in UL, wich will handle UEs independent on if they have implemented the CR or not.

Clauses affected:	⌘	13.7			
Other specs affected:	⌘	**Y** / **N** / **X** **X** / / **X**	Other core specifications Test specifications O&M Specifications	⌘	
Other comments:	⌘				

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.
2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

13.7 Parameter values for default radio configurations

The UE shall support the use of the default radio configurations that are specified in the following.

NOTE 1: These configurations are based on [41] and cover a number of RAB and signalling connection configurations.

In the table that is used to specify the parameter values for these default configurations, the following principles are used:

- Optional IEs that are not used are omitted;
- In case no parameter value is specified in a column, this means the value given the previous (left side) column applies.

NOTE 2: If needed, signalling radio bearer RB4 is established after the completion of handover.

NOTE 3: For each default configuration, the value of both FDD and TDD parameters are specified. All parameters apply to both FDD and TDD modes, unless explicitly stated otherwise. It should be noted that in this respect default configurations differ from pre-defined configurations, which only include parameter values for one mode.

NOTE 4: The transport format sizes, indicated in the following table, concern the RLC PDU size, since all configurations concern dedicated channels. The transport block sizes indicated in TS 34.108 are different since these include the size of the MAC header.

Configuration	**3.4 kbps signalling**	**13.6 kbps signalling**	**7.95 kbps speech + 3.4 kbps signalling**	**12.2 kbps speech + 3.4 kbps signalling**
Ref 34.108	2	3	6	4
Default configuration identity	0	1	2	3
RB INFORMATION				
rb-Identity	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3, RB5: 5, RB6: 6	RB1: 1, RB2: 2, RB3: 3, RB5: 5, RB6: 6, RB7: 7
rlc-InfoChoice	Rlc-info	Rlc-info	Rlc-info	Rlc-info
>ul-RLC-Mode	RB1: UM RB2- RB3: AM	RB1: UM RB2- RB3: AM	RB1: UM RB2- RB3: AM RB5-RB6: TM	RB1: UM RB2- RB3: AM RB5-RB7: TM
>>transmissionRLC-DiscardMode	RB1: N/A RB2- RB3: NoDiscard	RB1: N/A RB2- RB3: NoDiscard	RB1: N/A RB2- RB3: NoDiscard RB5- RB6: N/A	RB1: N/A RB2- RB3: NoDiscard RB5- RB7: N/A
>>>maxDat	RB1: N/A RB2- RB3: 15	RB1: N/A RB2- RB3: 15	RB1: N/A RB2- RB3: 15 RB5- RB6: N/A	RB1: N/A RB2- RB3: 15 RB5- RB7: N/A
>>transmissionWindowSize	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5- RB6: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5- RB7: N/A
>>timerRST	RB1: N/A RB2- RB3: 300	RB1: N/A RB2- RB3: 300	RB1: N/A RB2- RB3: 300 RB5- RB6: N/A	RB1: N/A RB2- RB3: 300 RB5- RB7: N/A
>>max-RST	RB1: N/A RB2- RB3: 1	RB1: N/A RB2- RB3: 1	RB1: N/A RB2- RB3: 1 RB5- RB6: N/A	RB1: N/A RB2- RB3: 1 RB5- RB7: N/A
>>pollingInfo	RB1: N/A RB2- RB3: as below	RB1: N/A RB2- RB3: as below	RB1: N/A RB2- RB3: as below RB5- RB6: N/A	RB1: N/A RB2- RB3: as below RB5- RB7: N/A

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech + 3.4 kbps signalling	12.2 kbps speech + 3.4 kbps signalling
>>>lastTransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>lastRetransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerPollPeriodic	RB2- RB3: 300	RB2- RB3: 100	RB2- RB3: 300	RB2- RB3: 300
>>segmentationIndication	RB1- RB3: N/A	RB1- RB3: N/A	RB1- RB3: N/A RB5- RB6: FALSE	RB1- RB3: N/A RB5- RB7: FALSE
>dl-RLC-Mode	RB1: UM RB2- RB3: AM	RB1: UM RB2- RB3: AM	RB1: UM RB2- RB3: AM RB5- RB6: TM	RB1: UM RB2- RB3: AM RB5- RB7: TM
>>inSequenceDelivery	RB1: N/A RB2- RB3: TRUE	RB1: N/A RB2- RB3: TRUE	RB1: N/A RB2- RB3: TRUE RB5- RB6: N/A	RB1: N/A RB2- RB3: TRUE RB5- RB7: N/A
>>receivingWindowSize	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5- RB6: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5- RB7: N/A
>>dl-RLC-StatusInfo	RB1: N/A RB2- RB3: as below	RB1: N/A RB2- RB3: as below	RB1: N/A RB2- RB3: as below RB5- RB6: N/A	RB1: N/A RB2- RB3: as below RB5- RB7: N/A
>>>timerStatusProhibit	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100
>>>missingPDU-Indicator	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerStatusPeriodic	RB2- RB3: 300	RB2- RB3: 100	RB2- RB3: 300	RB2- RB3: 300
>>segmentationIndication	RB1- RB3: N/A	RB1- RB3: N/A	RB1- RB3: N/A RB5- RB6: FALSE	RB1- RB3: N/A RB5- RB7: FALSE
rb-MappingInfo				
>UL-LogicalChannelMappings	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel
>>ul-TransportChannelType	Dch	Dch	Dch	Dch
>>>transportChannelIdentity	RB1- RB3: 1	RB1- RB3: 1	RB1- RB3: 3 RB5: 1, RB6: 2	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3
>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3 RB5- RB6: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A
>>rlc-SizeList	RB1- RB3: configured	RB1- RB3: configured	RB1- RB3: configured RB5- RB6: N/A	RB1- RB3: configured RB5- RB7: N/A
>>mac-LogicalChannelPriority	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3 RB5- RB6: 5	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: 5
>DL-logicalChannelMappingList				
>>Mapping option 1	One mapping option	One mapping option	One mapping option	One mapping option
>>>dl-TransportChannelType	Dch	Dch	Dch	Dch
>>>>transportChannelIdentity	RB1- RB3: 1	RB1- RB3: 1	RB1- RB3: 3 RB5: 1, RB6: 2	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3
>>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3 RB5- RB6: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A
TrCH INFORMATION PER TrCH				
UL-AddReconfTransChInfoList				
>Uplink transport channel type	dch	dch	dch	dch

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech + 3.4 kbps signalling	12.2 kbps speech + 3.4 kbps signalling
>transportChannelIdentity	TrCH1: 1	TrCH1: 1	TrCH1: 1, TrCH2: 2, TrCH3: 3	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>transportFormatSet	DedicatedTransChTFS	DedicatedTransChTFS	DedicatedTransChTFS	DedicatedTransChTFS
>>dynamicTF-information				
>>>tf0/ tf0,1	TrCH1: (0x144, 1x144)	TrCH1: (0x144, 1x144)	TrCH1: (0x75) TrCH2: (0x 84 1x84) TrCH3: (0x144, 1x144)	TrCH1: (0x81) TrCH2: (0x 103, 1x103) TrCH3: (0x 60, 1x60) TrCH4: (0x144, 1x144)
>>>>rlcSize	BitMode	BitMode	BitMode	BitMode
>>>>>sizeType	TrCH1: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 2, part2= 0 (144)	TrCH1: type 1: 75 TrCH2: type 1: 84 TrCH3: 2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 1: 81 TrCH2: type 1: 103 TrCH3: type 1: 60 TrCH4: 2: type 2, part1= 2, part2= 0 (144)
>>>>numberOfTbSizeList	TrCH1: Zero, one	TrCH1: Zero, one	TrCH1: Zero TrCH2-3: Zero, one	TrCH1: Zero TrCH2-4: Zero, one
>>>>logicalChannelList	All	All	All	All
>>>tf 1	N/A	N/A	TrCH1: (1x39) TrCH2- TrCH4: N/A	TrCH1: (1x39) TrCH2- TrCH4: N/A
>>>>numberOfTransportBlocks			TrCH1: One	TrCH1: One
>>>>rlc-Size			TrCH1: BitMode	TrCH1: BitMode
>>>>>sizeType			TrCH1: 1: 39	TrCH1: 1: 39
>>>>numberOfTbSizeList			TrCH1: One	TrCH1: One
>>>>logicalChannelList			TrCH1: all	TrCH1: all
>>>tf 2	N/A	N/A	TrCH1: (1x75) TrCH2- TrCH3: N/A	TrCH1: (1x81) TrCH2- TrCH4: N/A
>>>>numberOfTransportBlocks			TrCH1: Zero	TrCH1: Zero
>>>>rlc-Size			TrCH1: BitMode	TrCH1: BitMode
>>>>>sizeType			TrCH1: type 1: 75	TrCH1: type 1: 81
>>>>numberOfTbSizeList			TrCH1: One	TrCH1: One
>>>>logicalChannelList			TrCH1: all	TrCH1: all
>>semistaticTF-Information				
>>>tti	TrCH1: 40	TrCH1: 10	TrCH1- TrCH2: 20 TrCH3: 40	TrCH1- TrCH3: 20 TrCH4: 40
>>>channelCodingType	Convolutional	Convolutional	Convolutional	Convolutional
>>>>codingRate	TrCH1: Third	TrCH1: Third	TrCH1- TrCH2: Third TrCH3: Third	TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third
>>>rateMatchingAttribute	TrCH1: 160	TrCH1: 160	TrCH1: 200 TrCH2: 190 TrCH3: 160	TrCH1: 200 TrCH2: 190 TrCH3: 235 TrCH4: 160
>>>crc-Size	TrCH1: 16	TrCH1: 16	TrCH1: 12 TrCH2: 0 TrCH3: 16	TrCH1: 12 TrCH2- TrCH3: 0 TrCH4: 16
DL-AddReconfTransChInfoList				
>Downlink transport channel type	dch	dch	dch	dch
>dl-TransportChannelIdentity (should be as for UL)	TrCH1: 1	TrCH1: 1	TrCH1: 1, TrCH2: 2, TrCH3: 3	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech + 3.4 kbps signalling	12.2 kbps speech + 3.4 kbps signalling
>tfs-SignallingMode	SameAsUL	SameAsUL	Explicit <Only tf0 on TrCH1 is different and shown below>	Explicit <Only tf0 on TrCH1 is different and shown below>
>>transportFormatSet			DedicatedTransChTFS	DedicatedTransChTFS
>>>dynamicTF-information				
>>>>tf0/ tf0,1			TrCH1: (1x0)	TrCH1: (1x0)
>>>>rlcSize			BitMode	bitMode
>>>>>sizeType			TrCH1: type 1: 0	TrCH1: type 1: 0
>>>>numberOfTbSizeList			TrCH1: One	TrCH1: One
>>>>logicalChannelList			All	All
>>ULTrCH-Id	TrCH1: 1	TrCH1: 1	TrCH1: 1, TrCH2: 2, TrCH3: 3	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>dch-QualityTarget				
>>bler-QualityValue	TrCH1: $5x10^{-2}$	TrCH1: $5x10^{-2}$	TrCH1: $7x10^{-3}$ TrCH2- TrCH3: Absent	TrCH1: $7x10^{-3}$ TrCH2- TrCH4: Absent
TrCH INFORMATION, COMMON				
ul-CommonTransChInfo				
>tfcs-ID (TDD only)	1	1	1	1
>sharedChannelIndicator (TDD only)	FALSE	FALSE	FALSE	FALSE
>tfc-Subset	Absent, not required	Absent, not required	Absent, not required	Absent, not required
>ul-TFCS	Normal TFCI signalling	Normal TFCI signalling	Normal TFCI signalling	Normal TFCI signalling
>>explicitTFCS-ConfigurationMode	Complete	Complete	Complete	Complete
>>>ctfcSize	Ctfc2Bit	Ctfc2Bit	Ctfc4Bit	Ctfc6Bit
>>>>TFCS representation	Addition	Addition	Addition	Addition
>>>>>TFCS list				
>>>>>>TFCS 1	(TF0)	(TF0)	(TF0, TF0, TF0)	(TF0, TF0, TF0, TF0)
>>>>>>>ctfc	0	0	0	0
>>>>>>>gainFactorInformation	Computed	Computed	Computed	Computed
>>>>>>>>referenceTFCId	0	0	0	0
>>>>>>TFCS 2	(TF1)	(TF1)	(TF1, TF0, TF0)	(TF1, TF0, TF0, TF0)
>>>>>>>ctfc	1	1	1	1
>>>>>>>gainFactorInformation	Signalled	Signalled	Computed	Computed
>>>>>>>>βc (FDD only)	11	11	N/A	N/A
>>>>>>>>βd	15	15	N/A	N/A
>>>>>>>>referenceTFCId	0	0	0	0
>>>>>>TFCS 3			(TF2, TF1, TF0)	(TF2, TF1, TF1, TF0)
>>>>>>>ctfc			5	11
>>>>>>>gainFactorInformation			Computed	Computed
>>>>>>>>referenceTFCId			0	0
>>>>>>TFCS 4			(TF0, TF0, TF1)	(TF0, TF0, TF0, TF1)
>>>>>>>ctfc			6	12
>>>>>>>gainFactorInformation			Computed	Computed
>>>>>>>>βc (FDD only)			N/A	N/A
>>>>>>>>βd			N/A	N/A
>>>>>>>>referenceTFCId			0	0

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech + 3.4 kbps signalling	12.2 kbps speech + 3.4 kbps signalling
>>>>>>TFCS 5			(TF1, TF0, TF1)	(TF1, TF0, TF0, TF1)
>>>>>>>ctfc			7	13
>>>>>>>gainFactorInformation			Computed	Computed
>>>>>>>>referenceTFCId			0	0
>>>>>>TFCS 6			(TF2, TF1, TF1)	(TF2, TF1, TF1, TF1)
>>>>>>>ctfc			11	23
>>>>>>>gainFactorInformation			Signalled	Signalled
>>>>>>>>βc (FDD only)			11	11
>>>>>>>>βd			15	15
>>>>>>>>referenceTFCId			0	0
dl-CommonTransChInfo				
>tfcs-SignallingMode	Same as UL	Same as UL	Same as UL	Same as UL
PhyCH INFORMATION FDD				
UL-DPCH-InfoPredef				
>ul-DPCH-PowerControlInfo				
>>powerControlAlgorithm	Algorithm 1	Algorithm 1	Algorithm 1	Algorithm 1
>>>tpcStepSize	1	1	1	1
>tfci-Existence	TRUE	TRUE	TRUE	TRUE
>puncturingLimit	1	1	1	0.88
DL-CommonInformationPredef				
>dl-DPCH-InfoCommon				
>>spreadingFactor	256	128	128	128
>>tfci-Existence	FALSE	FALSE	FALSE	FALSE
>>pilotBits	4	4	4	4
>>positionFixed	N/A	N/A	Fixed	Fixed
PhyCH INFORMATION TDD				
UL-DPCH-InfoPredef				
>ul-DPCH-PowerControlInfo				
>>dpch-ConstantValue	-0	0	0	0
>commonTimeslotInfo				
>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>tfci-Coding	4	4	16	16
>>puncturingLimit	1	0.92	0.52	0.88
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
DL-CommonInformationPredef				
>dl-DPCH-InfoCommon				
>>commonTimeslotInfo				
>>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>>tfci-Coding	4	4	16	16
>>>puncturingLimit	1	0.92	0.52	0.92
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1

Configuration	28.8 kbps conv. CS- data + 3.4 kbps signalling	32 kbps conv. CS-data + 3.4 kbps signalling	64kbps conv. CS-data + 3.4 kbps signalling	14.4 kbps streaming CS-data + 3.4 kbps signalling

Configuration	28.8 kbps conv. CS- data + 3.4 kbps signalling	32 kbps conv. CS-data + 3.4 kbps signalling	64kbps conv. CS-data + 3.4 kbps signalling	14.4 kbps streaming CS-data + 3.4 kbps signalling
Ref 34.108	12	14	13	15
Default configuration identity	4	5	6	7
RB INFORMATION				
rb-Identity	RB1: 1, RB2: 2, RB3: 3, RB5: 5	RB1: 1, RB2: 2, RB3: 3, RB5: 5	RB1: 1, RB2: 2, RB3: 3, RB5: 5	RB1: 1, RB2: 2, RB3: 3, RB5: 5
rlc-InfoChoice	Rlc-info	Rlc-info	Rlc-info	Rlc-info
>ul-RLC-Mode	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM
>>transmissionRLC-DiscardMode	RB1: N/A RB2- RB3: NoDiscard RB5: N/A	RB1: N/A RB2- RB3: NoDiscard RB5: N/A	RB1: N/A RB2- RB3: NoDiscard RB5: N/A	RB1: N/A RB2- RB3: NoDiscard RB5: N/A
>>>maxDat	RB1: N/A RB2- RB3: 15 RB5: N/A	RB1: N/A RB2- RB3: 15 RB5: N/A	RB1: N/A RB2- RB3: 15 RB5: N/A	RB1: N/A RB2- RB3: 15 RB5: N/A
>>transmissionWindowSize	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5: N/A
>>timerRST	RB1: N/A RB2- RB3: 300 RB5: N/A	RB1: N/A RB2- RB3: 300 RB5: N/A	RB1: N/A RB2- RB3: 300 RB5: N/A	RB1: N/A RB2- RB3: 300 RB5: N/A
>>max-RST	RB1: N/A RB2- RB3: 1 RB5: N/A	RB1: N/A RB2- RB3: 1 RB5: N/A	RB1: N/A RB2- RB3: 1 RB5: N/A	RB1: N/A RB2- RB3: 1 RB5: N/A
>>pollingInfo	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A
>>>lastTransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>lastRetransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerPollPeriodic	RB2- RB3: 300	RB2- RB3: 300	RB2- RB3: 300	RB2- RB3: 300
>>segmentationIndication	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE
>dl-RLC-Mode	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM
>>inSequenceDelivery	RB1: N/A RB2- RB3: TRUE RB5: N/A	RB1: N/A RB2- RB3: TRUE RB5: N/A	RB1: N/A RB2- RB3: TRUE RB5: N/A	RB1: N/A RB2- RB3: TRUE RB5: N/A
>>receivingWindowSize	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5: N/A
>>dl-RLC-StatusInfo	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A
>>>timerStatusProhibit	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100
>>>missingPDU-Indicator	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerStatusPeriodic	RB2- RB3: 300	RB2- RB3: 300	RB2- RB3: 300	RB2- RB3: 300
>>segmentationIndication	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE
rb-MappingInfo				

Configuration	28.8 kbps conv. CS- data + 3.4 kbps signalling	32 kbps conv. CS-data + 3.4 kbps signalling	64kbps conv. CS-data + 3.4 kbps signalling	14.4 kbps streaming CS-data + 3.4 kbps signalling
>UL-LogicalChannelMappings	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel
>>ul-TransportChannelType	Dch	Dch	Dch	Dch
>>>transportChannelIdentity	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1
>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A
>>rlc-SizeList	RB1- RB3: configured RB5: N/A	RB1- RB3: configured RB5: N/A	RB1- RB3: configured RB5: N/A	RB1- RB3: configured RB5: N/A
>>mac-LogicalChannelPriority	RB1: 1, RB2: 2, RB3: 3 RB5: 5	RB1: 1, RB2: 2, RB3: 3 RB5: 5	RB1: 1, RB2: 2, RB3: 3 RB5: 5	RB1: 1, RB2: 2, RB3: 3 RB5: 5
>DL-logicalChannelMappingList				
>>Mapping option 1	One mapping option	One mapping option	One mapping option	One mapping option
>>>dl-TransportChannelType	Dch	Dch	Dch	Dch
>>>>transportChannelIdentity	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1
>>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A
TrCH INFORMATION PER TrCH				
UL-AddReconfTransChInfoList				
> Uplink transport channel type	dch	dch	dch	dch
>transportChannelIdentity	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2
>transportFormatSet	DedicatedTransChTFS	DedicatedTransChTFS	DedicatedTransChTFS	DedicatedTransChTFS
>>dynamicTF-information				
>>>tf0/ tf0,1	TrCH1: (0x576, 1x576, 2x576) TrCH2: (0x144, 1x144)	TrCH1: (0x640, 1x640) TrCH2: (0x144, 1x144)	TrCH1: (0x640, 2x640) TrCH2: (0x144, 1x144)	TrCH1: (0x576, 1x576) TrCH2: (0x144, 1x144)
>>>>rlcSize	TrCH1: OctetMode TrCH2:BitMode	TrCH1: OctetMode TrCH2:BitMode	TrCH1: OctetMode TrCH2:BitMode	TrCH1: OctetMode TrCH2:BitMode
>>>>>sizeType	TrCH1: type 2, part1= 11, part2= 2 (576) TrCH2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 11, part2= 2 (640) TrCH2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 11, part2= 2 (640) TrCH2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 9, part2= 2 (576) TrCH2: type 2, part1= 2, part2= 0 (144)
>>>>numberOfTbSizeList	TrCH1: Zero,1, 2 (4) TrCH2: Zero, one	TrCH1: Zero, one TrCH2: Zero, one	TrCH1: Zero, 2 (4) TrCH2: Zero, one	TrCH1: Zero, one, TrCH2: Zero, one
>>>>logicalChannelList	All	All	All	All
>>semiStaticTF-Information				
>>>tti	TrCH1: 40 TrCH2: 40	TrCH1: 20 TrCH2: 40	TrCH1: 20 TrCH2: 40	TrCH1: 40 TrCH2: 40
>>>channelCodingType	TrCH1: Turbo TrCH2: Convolutional	TrCH1: Turbo TrCH2: Convolutional	TrCH1: Turbo TrCH2: Convolutional	TrCH1: Turbo TrCH2: Convolutional
>>>>codingRate	TrCH1: N/A TrCH2: Third	TrCH1: N/A TrCH2: Third	TrCH1: N/A TrCH2: Third	TrCH1: N/A TrCH2: Third
>>>rateMatchingAttribute	TrCH1: 180 TrCH2: 160	TrCH1: 185 TrCH2: 160	TrCH1: 170 TrCH2: 160	TrCH1: 165 TrCH2: 160

Configuration	28.8 kbps conv. CS- data + 3.4 kbps signalling	32 kbps conv. CS-data + 3.4 kbps signalling	64kbps conv. CS-data + 3.4 kbps signalling	14.4 kbps streaming CS-data + 3.4 kbps signalling
>>>crc-Size	TrCH1: 16 TrCH2: 16	TrCH1: 16 TrCH2: 16	TrCH1: 16 TrCH2: 16	TrCH1: 16 TrCH2: 16
DL-AddReconfTransChInfoList				
>Downlink transport channel type	dch	dch	dch	dch
>dl-TransportChannelIdentity (should be as for UL)	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2
>tfs-SignallingMode	SameAsUL	SameAsUL	SameAsUL	SameAsUL
>>transportFormatSet				
>>>dynamicTF-information				
>>>>tf0/ tf0,1				
>>>>rlcSize				
>>>>>sizeType				
>>>>numberOfTbSizeList				
>>>>logicalChannelList				
>>ULTrCH-Id	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2
>dch-QualityTarget				
>>bler-QualityValue	TrCH1: $2x10^{-3}$ TrCH2: Absent	TrCH1: $2x10^{-3}$ TrCH2: Absent	TrCH1: $2x10^{-3}$ TrCH2: Absent	TrCH1: $1x10^{-2}$ TrCH2: Absent
TrCH INFORMATION, COMMON				
ul-CommonTransChInfo				
>tfcs-ID (TDD only)	1	1	1	1
>sharedChannelIndicator (TDD only)	FALSE	FALSE	FALSE	FALSE
>tfc-Subset	Absent, not required	Absent, not required	Absent, not required	Absent, not required
>ul-TFCS	Normal TFCI signalling	Normal TFCI signalling	Normal TFCI signalling	Normal TFCI signalling
>>explicitTFCS-ConfigurationMode	Complete	Complete	Complete	Complete
>>>ctfcSize	Ctfc2Bit	Ctfc2Bit	Ctfc2Bit	Ctfc4Bit
>>>>TFCS representation	Addition	Addition	Addition	Addition
>>>>>TFCS list				
>>>>>>TFCS 1	(TF0, TF0)	(TF0, TF0)	(TF0, TF0)	(TF0, TF0)
>>>>>>>ctfc	0	0	0	0
>>>>>>>gainFactorInformation	Computed	Computed	Computed	Computed
>>>>>>>>referenceTFCId	0	0	0	0
>>>>>>TFCS 2	(TF1, TF0)	(TF1, TF0)	(TF1, TF0)	(TF1, TF0)
>>>>>>>ctfc	1	1	1	1
>>>>>>>gainFactorInformation	Computed	Computed	Computed	Computed
>>>>>>>>βc (FDD only)	N/A	N/A	N/A	N/A
>>>>>>>>βd	N/A	N/A	N/A	N/A
>>>>>>>>referenceTFCId	0	0	0	0
>>>>>>TFCS 3	(TF2, TF0)	(TF0, TF1)	(TF0, TF1)	(TF0, TF1)
>>>>>>>ctfc	2	2	2	2
>>>>>>>gainFactorInformation	Computed	Computed	Computed	Computed
>>>>>>>>referenceTFCId	0	0	0	0
>>>>>>TFCS 4	(TF0, TF1)	(TF1, TF1)	(TF1, TF1)	(TF1, TF1)
>>>>>>>ctfc	3	3	3	3
>>>>>>>gainFactorInformation	Computed	Signalled	Signalled	Signalled
>>>>>>>>βc (FDD only)	N/A	8	8	11
>>>>>>>>βd	N/A	15	15	15
>>>>>>>>referenceTFCId	0	0	0	0

Configuration	28.8 kbps conv. CS- data + 3.4 kbps signalling	32 kbps conv. CS-data + 3.4 kbps signalling	64kbps conv. CS-data + 3.4 kbps signalling	14.4 kbps streaming CS-data + 3.4 kbps signalling
>>>>>>TFCS 5	(TF1, TF1)	N/A	N/A	
>>>>>>>ctfc	4			
>>>>>>>gainFactorInformation	Computed			
>>>>>>>>referenceTFCId	0			
>>>>>>TFCS 6	(TF2, TF1)	N/A	N/A	
>>>>>>>ctfc	5			
>>>>>>>gainFactorInformation	Signalled			
>>>>>>>>βc (FDD only)	8			
>>>>>>>>βd	15			
>>>>>>>>referenceTFCId	0			
>>>>>>TFCS 7				
>>>>>>>ctfc				
>>>>>>>gainFactorInformation				
>>>>>>>>referenceTFCId				
>>>>>>TFCS 8				
>>>>>>>ctfc				
>>>>>>>gainFactorInformation				
>>>>>>>>referenceTFCId				
>>>>>>TFCS 9				
>>>>>>>ctfc				
>>>>>>>gainFactorInformation				
>>>>>>>>referenceTFCId				
>>>>>>TFCS 10				
>>>>>>>ctfc				
>>>>>>>gainFactorInformation				
>>>>>>>>βc (FDD only)				
>>>>>>>>βd				
>>>>>>>>referenceTFCId				
dl-CommonTransChInfo				
>tfcs-SignallingMode	Same as UL	Same as UL	Same as UL	Same as UL
PhyCH INFORMATION FDD				
UL-DPCH-InfoPredef				
>ul-DPCH-PowerControlInfo				
>>powerControlAlgorithm	Algorithm 1	Algorithm 1	Algorithm 1	Algorithm 1
>>>tpcStepSize	1	1	1	1
>tfci-Existence	TRUE	TRUE	TRUE	TRUE
>puncturingLimit	0.92	0.8	0.92	1
DL-CommonInformationPredef				
>dl-DPCH-InfoCommon				
>>spreadingFactor	64	64	32	128
>>tfci-Existence	TRUE	TRUE	TRUE	TRUE
>>pilotBits	8	8	8	8
>>positionFixed	Flexible	Flexible	Flexible	Flexible
PhyCH INFORMATION TDD				
UL-DPCH-InfoPredef				
>ul-DPCH-PowerControlInfo				
>>dpch-ConstantValue	0	0	0	0

Configuration	28.8 kbps conv. CS- data + 3.4 kbps signalling	32 kbps conv. CS-data + 3.4 kbps signalling	64kbps conv. CS-data + 3.4 kbps signalling	14.4 kbps streaming CS-data + 3.4 kbps signalling
>commonTimeslotInfo				
>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>tfci-Coding	16	8	8	8
>>puncturingLimit	0.44	0.8	0.56	0.8
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
DL-CommonInformationPredef				
>dl-DPCH-InfoCommon				
>>commonTimeslotInfo				
>>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>>tfci-Coding	16	8	8	8
>>>puncturingLimit	0.44	0.64	0.56	0.8
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling	12.2 kbps speech(multimode) + 3.4 kbps signalling
Ref 34.108	16	17	4a
Default configuration identity	8	9	10
RB INFORMATION			
rb-Identity	RB1: 1, RB2: 2, RB3: 3, RB5: 5	RB1: 1, RB2: 2, RB3: 3, RB5: 5	RB1: 1, RB2: 2, RB3: 3, RB5: 5, RB6: 6, RB7: 7
rlc-InfoChoice	Rlc-info	Rlc-info	Rlc-info
>ul-RLC-Mode	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5-RB7: TM
>>transmissionRLC-DiscardMode	RB1: N/A RB2- RB3: NoDiscard RB5: N/A	RB1: N/A RB2- RB3: NoDiscard RB5: N/A	RB1: N/A RB2- RB3: NoDiscard RB5- RB7: N/A
>>>maxDat	RB1: N/A RB2- RB3: 15 RB5: N/A	RB1: N/A RB2- RB3: 15 RB5: N/A	RB1: N/A RB2- RB3: 15 RB5- RB7: N/A
>>transmissionWindowSize	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5- RB7: N/A
>>timerRST	RB1: N/A RB2- RB3: 300 RB5: N/A	RB1: N/A RB2- RB3: 300 RB5: N/A	RB1: N/A RB2- RB3: 300 RB5- RB7: N/A
>>max-RST	RB1: N/A RB2- RB3: 1 RB5: N/A	RB1: N/A RB2- RB3: 1 RB5: N/A	RB1: N/A RB2- RB3: 1 RB5- RB7: N/A
>>pollingInfo	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5- RB7: N/A
>>>lastTransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>lastRetransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling	12.2 kbps speech(multimode) + 3.4 kbps signalling
>>>timerPollPeriodic	RB2- RB3: 300	RB2- RB3: 300	RB2- RB3: 300
>>segmentationIndication	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5- RB7: FALSE
>dl-RLC-Mode	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5- RB7: TM
>>inSequenceDelivery	RB1: N/A RB2- RB3: TRUE RB5: N/A	RB1: N/A RB2- RB3: TRUE RB5: N/A	RB1: N/A RB2- RB3: TRUE RB5- RB7: N/A
>>receivingWindowSize	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5- RB7: N/A
>>dl-RLC-StatusInfo	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5- RB7: N/A
>>>timerStatusProhibit	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100
>>>missingPDU-Indicator	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerStatusPeriodic	RB2- RB3: 300	RB2- RB3: 300	RB2- RB3: 300
>>segmentationIndication	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5- RB7: FALSE
rb-MappingInfo			
>UL-LogicalChannelMappings	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel
>>ul-TransportChannelType	Dch	Dch	Dch
>>>transportChannelIdentity	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3
>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A
>>rlc-SizeList	RB1- RB3: configured RB5: N/A	RB1- RB3: configured RB5: N/A	RB1- RB3: configured RB5- RB7: N/A
>>mac-LogicalChannelPriority	RB1: 1, RB2: 2, RB3: 3 RB5: 5	RB1: 1, RB2: 2, RB3: 3 RB5: 5	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: 5
>DL-logicalChannelMappingList			
>>Mapping option 1	One mapping option	One mapping option	One mapping option
>>>dl-TransportChannelType	Dch	Dch	Dch
>>>>transportChannelIdentity	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3
>>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A
TrCH INFORMATION PER TrCH			
UL-AddReconfTransChInfoList			
>Uplink transport channel type	dch	dch	dch
>transportChannelIdentity	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling	12.2 kbps speech(multimode) + 3.4 kbps signalling
>transportFormatSet	DedicatedTransChTFS	DedicatedTransChTFS	DedicatedTransChTFS
>>dynamicTF-information			
>>>tf0/ tf0,1	TrCH1: (0x576, 1x576, 2x576) TrCH2: (0x144, 1x144)	TrCH1: (0x576, 1x576, 2x576, 3x576, 4x576) TrCH2: (0x144, 1x144)	TrCH1: (0x81) TrCH2: (0x 103 TrCH3: (0x 60) TrCH4: (0x144)
>>>>rlcSize	TrCH1: OctetMode TrCH2:BitMode	TrCH1: OctetMode TrCH2:BitMode	BitMode
>>>>>sizeType	TrCH1: type 2, part1= 9, part2= 2 (576) TrCH2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 9, part2= 2 (576) TrCH2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 1: 81 TrCH2: type 1: 103 TrCH3: type 1: 60 TrCH4: 2: type 2, part1= 2, part2= 0 (144)
>>>>numberOfTbSizeList	TrCH1: Zero, one, 2 TrCH2: Zero, one	TrCH1: Zero, one, 2, 3, 4 TrCH2: Zero, one	TrCH1-4: Zero
>>>>logicalChannelList	All	All	All
>>>tf 1			TrCH1: (1x39) TrCH2: (1x53) TrCH3: (1x60) TrCH4: (1x144)
>>>>numberOfTransportBlocks			TrCH1-3: One
>>>>rlc-Size			TrCH1-3: BitMode
>>>>>sizeType			TrCH1: 1: 39 TrCH2: 1: 53 TrCH3: 1: 60
>>>>numberOfTbSizeList			TrCH1-3: One
>>>>logicalChannelList			TrCH1-3: all
>>>tf 2			TrCH1: (1x42) TrCH2: (1x63) TrCH3- TrCH4: N/A
>>>>numberOfTransportBlocks			TrCH1-2: One
>>>>rlc-Size			TrCH1: BitMode
>>>>>sizeType			TrCH1: type 1: 42 TrCH2: type 1: 63
>>>>numberOfTbSizeList			TrCH1-2: One
>>>>logicalChannelList			TrCH1: all
>>>tf 3			TrCH1: (1x55) TrCH2: (1x84) TrCH3- TrCH4: N/A
>>>>numberOfTransportBlocks			TrCH1-2: Zero
>>>>rlc-Size			TrCH1: BitMode
>>>>>sizeType			TrCH1: type 1: 55 TrCH2: type 1: 84
>>>>numberOfTbSizeList			TrCH1-2: One
>>>>logicalChannelList			TrCH1: all
>>>tf 4			TrCH1: (1x75) TrCH2: (1x103) TrCH3- TrCH4: N/A
>>>>numberOfTransportBlocks			TrCH1-2: One
>>>>rlc-Size			TrCH1: BitMode
>>>>>sizeType			TrCH1: type 1: 75 TrCH2: type 1: 103
>>>>numberOfTbSizeList			TrCH1-2: One
>>>>logicalChannelList			TrCH1: all

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling	12.2 kbps speech(multimode) + 3.4 kbps signalling
>>>tf 5			TrCH1: (1x81) TrCH2- TrCH4: N/A
>>>>numberOfTransportBlocks			TrCH1: One
>>>>rlc-Size			TrCH1: BitMode
>>>>>sizeType			TrCH1: type 1: 81
>>>>numberOfTbSizeList			TrCH1: One
>>>>logicalChannelList			TrCH1: all
>>semiStaticTF-Information			
>>>tti	TrCH1: 40 TrCH2: 40	TrCH1: 40 TrCH2: 40	TrCH1- TrCH3: 20 TrCH4: 40
>>>channelCodingType	TrCH1: Turbo TrCH2: Convolutional	TrCH1: Turbo TrCH2: Convolutional	Convolutional
>>>>codingRate	TrCH1: N/A TrCH2: Third	TrCH1: N/A TrCH2: Third	TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third
>>>rateMatchingAttribute	TrCH1: 155 TrCH2: 160	TrCH1: 145 TrCH2: 160	TrCH1: 200 TrCH2: 190 TrCH3: 235 TrCH4: 160
>>>crc-Size	TrCH1: 16 TrCH2: 16	TrCH1: 16 TrCH2: 16	TrCH1: 12 TrCH2- TrCH3: 0 TrCH4: 16
DL-AddReconfTransChInfoList			
>Downlink transport channel type	dch	dch	dch
>dl-TransportChannelIdentity (should be as for UL)	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>tfs-SignallingMode	SameAsUL	SameAsUL	Independent <Only tf0 on TrCH1 is different and shown below>
>>transportFormatSet			DedicatedTransChTFS
>>>dynamicTF-information			
>>>>tf0/ tf0,1			TrCH1: (1x0)
>>>>rlcSize			bitMode
>>>>>sizeType			TrCH1: type 1: 0
>>>>numberOfTbSizeList			TrCH1: One
>>>>logicalChannelList			All
>>ULTrCH-Id	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>dch-QualityTarget			
>>bler-QualityValue	TrCH1: $1x10^{-2}$ TrCH2: Absent	TrCH1: $1x10^{-2}$ TrCH2: Absent	TrCH1: $7x10^{-3}$ TrCH2- TrCH4: Absent
TrCH INFORMATION, COMMON			
ul-CommonTransChInfo			
>tfcs-ID (TDD only)	1	1	1
>sharedChannelIndicator (TDD only)	FALSE	FALSE	FALSE
>tfc-Subset	Absent, not required	Absent, not required	Absent, not required
>ul-TFCS	Normal TFCI signalling	Normal TFCI signalling	Normal TFCI signalling

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling	12.2 kbps speech(multimode) + 3.4 kbps signalling
>>explicitTFCS-ConfigurationMode	Complete	Complete	Complete
>>>ctfcSize	Ctfc4Bit	Ctfc4Bit	Ctfc8Bit
>>>>TFCS representation	Addition	Addition	Addition
>>>>>TFCS list			
>>>>>>TFCS 1	(TF0, TF0)	(TF0, TF0)	(TF0, TF0, TF0, TF0)
>>>>>>>ctfc	0	0	0
>>>>>>>gainFactorInformation	Computed	Computed	Computed
>>>>>>>>referenceTFCId	0	0	0
>>>>>>TFCS 2	(TF1, TF0)	(TF1, TF0)	(TF1, TF0, TF0, TF0)
>>>>>>>ctfc	1	1	1
>>>>>>>gainFactorInformation	Computed	Computed	Computed
>>>>>>>>βc (FDD only)	N/A	N/A	N/A
>>>>>>>>βd	N/A	N/A	N/A
>>>>>>>>referenceTFCId	0	0	0
>>>>>>TFCS 3	(TF2, TF0)	(TF2, TF0)	(TF2, TF1, TF0, TF0)
>>>>>>>ctfc	2	2	8
>>>>>>>gainFactorInformation	Computed	Computed	Computed
>>>>>>>>referenceTFCId	0	0	0
>>>>>>TFCS 4	(TF0, TF1)	(TF3, TF0)	(TF3, TF2, TF0, TF0)
>>>>>>>ctfc	3	3	15
>>>>>>>gainFactorInformation	Computed	Computed	Computed
>>>>>>>>βc (FDD only)	N/A	N/A	N/A
>>>>>>>>βd	N/A	N/A	N/A
>>>>>>>>referenceTFCId	0	0	0
>>>>>>TFCS 5	(TF1, TF1)	(TF4, TF0)	(TF4, TF3, TF0, TF0)
>>>>>>>ctfc	4	4	22
>>>>>>>gainFactorInformation	Computed	Computed	Computed
>>>>>>>>referenceTFCId	0	0	0
>>>>>>TFCS 6	(TF2, TF1)	(TF0, TF1)	(TF5, TF4, TF1, TF0)
>>>>>>>ctfc	5	5	59
>>>>>>>gainFactorInformation	Signalled	Computed	Computed
>>>>>>>>βc (FDD only)	8	N/A	N/A
>>>>>>>>βd	15	N/A	N/A
>>>>>>>>referenceTFCId	0	0	0
>>>>>>TFCS 7		(TF1, TF1)	(TF0,TF0,TF0,TF1)
>>>>>>>ctfc		6	60
>>>>>>>gainFactorInformation		Computed	Computed
>>>>>>>>referenceTFCId		0	0
>>>>>>TFCS 8		(TF2, TF1)	(TF1,TF0,TF0,TF1)
>>>>>>>ctfc		7	61
>>>>>>>gainFactorInformation		Computed	Computed
>>>>>>>>referenceTFCId		0	0
>>>>>>TFCS 9		(TF3, TF1)	(TF2,TF1,TF0,TF1)
>>>>>>>ctfc		8	68

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling	12.2 kbps speech(multimode) + 3.4 kbps signalling
>>>>>>>gainFactorInformation		Computed	Computed
>>>>>>>>referenceTFCId		0	0
>>>>>>TFCS 10		(TF4, TF1)	(TF3,TF2,TF0,TF1)
>>>>>>>ctfc		9	75
>>>>>>>gainFactorInformation		Signalled	Computed
>>>>>>>>βc (FDD only)		8	N/A
>>>>>>>>βd		15	N/A
>>>>>>>>referenceTFCId		0	0
>>>>>>TFCS 11			(TF4,TF3,TF0,TF1)
>>>>>>>ctfc			82
>>>>>>>gainFactorInformation			Computed
>>>>>>>>referenceTFCId			0
>>>>>>TFCS 12			(TF5,TF4,TF1,TF1)
>>>>>>>ctfc			119
>>>>>>>gainFactorInformation			Signalled
>>>>>>>>βc (FDD only)			11
>>>>>>>>βd			15
>>>>>>>>referenceTFCId			0
dl-CommonTransChInfo			
>tfcs-SignallingMode	Same as UL	Same as UL	Same as UL
PhyCH INFORMATION FDD			
UL-DPCH-InfoPredef			
>ul-DPCH-PowerControlInfo			
>>powerControlAlgorithm	Algorithm 1	Algorithm 1	Algorithm 1
>>>tpcStepSize	1	1	1
>tfci-Existence	TRUE	TRUE	TRUE
>puncturingLimit	1	1	0.88
DL-CommonInformationPredef			
>dl-DPCH-InfoCommon			
>>spreadingFactor	64	32	128
>>tfci-Existence	TRUE	TRUE	FALSE
>>pilotBits	8	8	4
>>positionFixed	Flexible	Flexible	Fixed
PhyCH INFORMATION TDD			
UL-DPCH-InfoPredef			
>ul-DPCH-PowerControlInfo			
>>dpch-ConstantValue	0	0	0
>commonTimeslotInfo			
>>secondInterleavingMode	frameRelated	frameRelated	frameRelated
>>tfci-Coding	16	16	16
>>puncturingLimit	0.44	0.48	0.88
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
DL-CommonInformationPredef			
>dl-DPCH-InfoCommon			
>>commonTimeslotInfo			

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling	12.2 kbps speech(multimode) + 3.4 kbps signalling
>>>secondInterleavingMode	frameRelated	frameRelated	frameRelated
>>>tfci-Coding	16	16	16
>>>puncturingLimit	0.44	0.48	0.92
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1

3GPP TSG-RAN2 Meeting #33 **Tdoc ⌘R2-023130**
Sophia Antipolis, France, 11th-15th November 2002

CR-Form-v7

CHANGE REQUEST

⌘ **25.331** **CR** **1765** ⌘ **rev** **-** ⌘ Current version: **4.7.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ [ ] ME [X] Radio Access Network [X] Core Network [ ]

Title:	⌘	RLC window size in default configurations
Source:	⌘	Ericsson
Work item code:	⌘	TEI
Date:	⌘	15 November 2002
Category:	⌘	**A**
Release:	⌘	Rel-4

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:
2 *(GSM Phase 2)*
R96 *(Release 1996)*
R97 *(Release 1997)*
R98 *(Release 1998)*
R99 *(Release 1999)*
Rel-4 *(Release 4)*
Rel-5 *(Release 5)*
Rel-6 *(Release 6)*

Reason for change:	⌘	The RLC window sizes on SRB2 and SRB3 in the default configuration used at handover from GSM where discussed at WG2 #32 (see R2-022651). The current RLC window sizes of 128 on the SRBs require 8 kbyte of RLC buffer memory. For low end UEs with 10kbyte RLC buffer memory, the remaining 2 kbyte memory is insufficient to setup SRB4 and a PS RAB. To solve the above problem it is proposed to lower the RLC window sizes from 128 to 32 for SRB2 and SRB3 in the default configurations, for UEs with 10 kbyte RLC memory. For UEs with larger RLC buffer memory, the current values are kept.
Summary of change:	⌘	The RLC window sizes for SRB2 and SRB3 are changed from 128 to 32 for UEs with 10 kbyte memory in the default configurations used at handover from GSM.
Consequences if not approved:	⌘	If no change is made, the functionality for low end UEs with 10kbyte RLC buffer memory will be limited. Handover from GSM is possible, but a subsequent setup of SRB4 and a PS RAB will lead to significantly lower performance.

Clauses affected:	⌘	13.7

Other specs affected: ⌘	Y	N		⌘
		X	Other core specifications	
	X		Test specifications	
		X	O&M Specifications	

Other comments: ⌘	

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

13.7 Parameter values for default radio configurations

The UE shall support the use of the default radio configurations that are specified in the following.

NOTE 1: These configurations are based on [41] and cover a number of RAB and signalling connection configurations.

In the table that is used to specify the parameter values for these default configurations, the following principles are used:

- Optional IEs that are not used are omitted;
- In case no parameter value is specified in a column, this means the value given the previous (left side) column applies.

NOTE 2: If needed, signalling radio bearer RB4 is established after the completion of handover.

NOTE 3: For each default configuration, the value of FDD, 3.84 Mcps TDD and 1.28 Mcps TDD parameters are specified. All parameters apply to FDD, 3.84 Mcps TDD and 1.28 Mcps TDD modes, unless explicitly stated otherwise. It should be noted that in this respect default configurations differ from pre-defined configurations, which only include parameter values for one mode.

NOTE 4: The transport format sizes, indicated in the following table, concern the RLC PDU size, since all configurations concern dedicated channels. The transport block sizes indicated in TS 34.108 are different since these include the size of the MAC header.

Configuration	**3.4 kbps signalling**	**13.6 kbps signalling**	**7.95 kbps speech + 3.4 kbps signalling**	**12.2 kbps speech + 3.4 kbps signalling**
Ref 34.108	2	3	6	4
Default configuration identity	0	1	2	3
RB INFORMATION				
rb-Identity	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3, RB5: 5, RB6: 6	RB1: 1, RB2: 2, RB3: 3, RB5: 5, RB6: 6, RB7: 7
rlc-InfoChoice	Rlc-info	Rlc-info	Rlc-info	Rlc-info
>ul-RLC-Mode	RB1: UM RB2- RB3: AM	RB1: UM RB2- RB3: AM	RB1: UM RB2- RB3: AM RB5-RB6: TM	RB1: UM RB2- RB3: AM RB5-RB7: TM
>>transmissionRLC-DiscardMode	RB1: N/A RB2- RB3: NoDiscard	RB1: N/A RB2- RB3: NoDiscard	RB1: N/A RB2- RB3: NoDiscard RB5- RB6: N/A	RB1: N/A RB2- RB3: NoDiscard RB5- RB7: N/A
>>>maxDat	RB1: N/A RB2- RB3: 15	RB1: N/A RB2- RB3: 15	RB1: N/A RB2- RB3: 15 RB5- RB6: N/A	RB1: N/A RB2- RB3: 15 RB5- RB7: N/A
>>transmissionWindowSize	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5- RB6: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5- RB7: N/A
>>timerRST	RB1: N/A RB2- RB3: 300	RB1: N/A RB2- RB3: 300	RB1: N/A RB2- RB3: 300 RB5- RB6: N/A	RB1: N/A RB2- RB3: 300 RB5- RB7: N/A
>>max-RST	RB1: N/A RB2- RB3: 1	RB1: N/A RB2- RB3: 1	RB1: N/A RB2- RB3: 1 RB5- RB6: N/A	RB1: N/A RB2- RB3: 1 RB5- RB7: N/A
>>pollingInfo	RB1: N/A RB2- RB3: as below	RB1: N/A RB2- RB3: as below	RB1: N/A RB2- RB3: as below RB5- RB6: N/A	RB1: N/A RB2- RB3: as below RB5- RB7: N/A

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech + 3.4 kbps signalling	12.2 kbps speech + 3.4 kbps signalling
>>>lastTransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>lastRetransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerPollPeriodic	RB2- RB3: 300	RB2- RB3: 100	RB2- RB3: 300	RB2- RB3: 300
>>segmentationIndication	RB1- RB3: N/A	RB1- RB3: N/A	RB1- RB3: N/A RB5- RB6: FALSE	RB1- RB3: N/A RB5- RB7: FALSE
>dl-RLC-Mode	RB1: UM RB2- RB3: AM	RB1: UM RB2- RB3: AM	RB1: UM RB2- RB3: AM RB5- RB6: TM	RB1: UM RB2- RB3: AM RB5- RB7: TM
>>inSequenceDelivery	RB1: N/A RB2- RB3: TRUE	RB1: N/A RB2- RB3: TRUE	RB1: N/A RB2- RB3: TRUE RB5- RB6: N/A	RB1: N/A RB2- RB3: TRUE RB5- RB7: N/A
>>receivingWindowSize	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5- RB6: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5- RB7: N/A
>>dl-RLC-StatusInfo	RB1: N/A RB2- RB3: as below	RB1: N/A RB2- RB3: as below	RB1: N/A RB2- RB3: as below RB5- RB6: N/A	RB1: N/A RB2- RB3: as below RB5- RB7: N/A
>>>timerStatusProhibit	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100
>>>missingPDU-Indicator	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerStatusPeriodic	RB2- RB3: 300	RB2- RB3: 100	RB2- RB3: 300	RB2- RB3: 300
>>segmentationIndication	RB1- RB3: N/A	RB1- RB3: N/A	RB1- RB3: N/A RB5- RB6: FALSE	RB1- RB3: N/A RB5- RB7: FALSE
rb-MappingInfo				
>UL-LogicalChannelMappings	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel
>>ul-TransportChannelType	Dch	Dch	Dch	Dch
>>>transportChannelIdentity	RB1- RB3: 1	RB1- RB3: 1	RB1- RB3: 3 RB5: 1, RB6: 2	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3
>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3 RB5- RB6: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A
>>rlc-SizeList	RB1- RB3: configured	RB1- RB3: configured	RB1- RB3: configured RB5- RB6: N/A	RB1- RB3: configured RB5- RB7: N/A
>>mac-LogicalChannelPriority	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3 RB5- RB6: 5	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: 5
>DL-logicalChannelMappingList				
>>Mapping option 1	One mapping option	One mapping option	One mapping option	One mapping option
>>>dl-TransportChannelType	Dch	Dch	Dch	Dch
>>>>transportChannelIdentity	RB1- RB3: 1	RB1- RB3: 1	RB1- RB3: 3 RB5: 1, RB6: 2	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3
>>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3 RB5- RB6: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A
TrCH INFORMATION PER TrCH				
UL-AddReconfTransChInfoList				
>Uplink transport channel type	dch	dch	dch	dch

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech + 3.4 kbps signalling	12.2 kbps speech + 3.4 kbps signalling
>transportChannelIdentity	TrCH1: 1	TrCH1: 1	TrCH1: 1, TrCH2: 2, TrCH3: 3	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>transportFormatSet	DedicatedTransChTFS	DedicatedTransChTFS	DedicatedTransChTFS	DedicatedTransChTFS
>>dynamicTF-information				
>>>tf0/ tf0,1	TrCH1: (0x144, 1x144)	TrCH1: (0x144, 1x144)	TrCH1: (0x75) TrCH2: (0x 84 1x84) TrCH3: (0x144, 1x144)	TrCH1: (0x81) TrCH2: (0x 103, 1x103) TrCH3: (0x 60, 1x60) TrCH4: (0x144, 1x144)
>>>>rlcSize	BitMode	BitMode	BitMode	BitMode
>>>>>sizeType	TrCH1: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 2, part2= 0 (144)	TrCH1: type 1: 75 TrCH2: type 1: 84 TrCH3: 2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 1: 81 TrCH2: type 1: 103 TrCH3: type 1: 60 TrCH4: 2: type 2, part1= 2, part2= 0 (144)
>>>>numberOfTbSizeList	TrCH1: Zero, one	TrCH1: Zero, one	TrCH1: Zero TrCH2-3: Zero, one	TrCH1: Zero TrCH2-4: Zero, one
>>>>logicalChannelList	All	All	All	All
>>>tf 1	N/A	N/A	TrCH1: (1x39) TrCH2- TrCH4: N/A	TrCH1: (1x39) TrCH2- TrCH4: N/A
>>>>numberOfTransportBlocks			TrCH1: One	TrCH1: One
>>>>rlc-Size			TrCH1: BitMode	TrCH1: BitMode
>>>>>sizeType			TrCH1: 1: 39	TrCH1: 1: 39
>>>>numberOfTbSizeList			TrCH1: One	TrCH1: One
>>>>logicalChannelList			TrCH1: all	TrCH1: all
>>>tf 2	N/A	N/A	TrCH1: (1x75) TrCH2- TrCH3: N/A	TrCH1: (1x81) TrCH2- TrCH4: N/A
>>>>numberOfTransportBlocks			TrCH1: Zero	TrCH1: Zero
>>>>rlc-Size			TrCH1: BitMode	TrCH1: BitMode
>>>>>sizeType			TrCH1: type 1: 75	TrCH1: type 1: 81
>>>>numberOfTbSizeList			TrCH1: One	TrCH1: One
>>>>logicalChannelList			TrCH1: all	TrCH1: all
>>semistaticTF-Information				
>>>tti	TrCH1: 40	TrCH1: 10	TrCH1- TrCH2: 20 TrCH3: 40	TrCH1- TrCH3: 20 TrCH4: 40
>>>channelCodingType	Convolutional	Convolutional	Convolutional	Convolutional
>>>>codingRate	TrCH1: Third	TrCH1: Third	TrCH1- TrCH2: Third TrCH3: Third	TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third
>>>rateMatchingAttribute	TrCH1: 160	TrCH1: 160	TrCH1: 200 TrCH2: 190 TrCH3: 160	TrCH1: 200 TrCH2: 190 TrCH3: 235 TrCH4: 160
>>>crc-Size	TrCH1: 16	TrCH1: 16	TrCH1: 12 TrCH2: 0 TrCH3: 16	TrCH1: 12 TrCH2- TrCH3: 0 TrCH4: 16
DL-AddReconfTransChInfoList				
>Downlink transport channel type	dch	dch	dch	dch
>dl-TransportChannelIdentity (should be as for UL)	TrCH1: 1	TrCH1: 1	TrCH1: 1, TrCH2: 2, TrCH3: 3	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech + 3.4 kbps signalling	12.2 kbps speech + 3.4 kbps signalling
>tfs-SignallingMode	SameAsUL	SameAsUL	Explicit <Only tf0 on TrCH1 is different and shown below>	Explicit <Only tf0 on TrCH1 is different and shown below>
>>transportFormatSet			DedicatedTransChTFS	DedicatedTransChTFS
>>>dynamicTF-information				
>>>>tf0/ tf0,1			TrCH1: (1x0)	TrCH1: (1x0)
>>>>rlcSize			BitMode	bitMode
>>>>>sizeType			TrCH1: type 1: 0	TrCH1: type 1: 0
>>>>numberOfTbSizeList			TrCH1: One	TrCH1: One
>>>>logicalChannelList			All	All
>>ULTrCH-Id	TrCH1: 1	TrCH1: 1	TrCH1: 1, TrCH2: 2, TrCH3: 3	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>dch-QualityTarget				
>>bler-QualityValue	TrCH1: $5x10^{-2}$	TrCH1: $5x10^{-2}$	TrCH1: $7x10^{-3}$ TrCH2- TrCH3: Absent	TrCH1: $7x10^{-3}$ TrCH2- TrCH4: Absent
TrCH INFORMATION, COMMON				
ul-CommonTransChInfo				
>tfcs-ID (TDD only)	1	1	1	1
>sharedChannelIndicator (TDD only)	FALSE	FALSE	FALSE	FALSE
>tfc-Subset	Absent, not required	Absent, not required	Absent, not required	Absent, not required
>ul-TFCS	Normal TFCI signalling	Normal TFCI signalling	Normal TFCI signalling	Normal TFCI signalling
>>explicitTFCS-ConfigurationMode	Complete	Complete	Complete	Complete
>>>ctfcSize	Ctfc2Bit	Ctfc2Bit	Ctfc4Bit	Ctfc6Bit
>>>>TFCS representation	Addition	Addition	Addition	Addition
>>>>>TFCS list				
>>>>>>TFCS 1	(TF0)	(TF0)	(TF0, TF0, TF0)	(TF0, TF0, TF0, TF0)
>>>>>>>ctfc	0	0	0	0
>>>>>>>gainFactorInformation	Computed	Computed	Computed	Computed
>>>>>>>>referenceTFCId	0	0	0	0
>>>>>>TFCS 2	(TF1)	(TF1)	(TF1, TF0, TF0)	(TF1, TF0, TF0, TF0)
>>>>>>>ctfc	1	1	1	1
>>>>>>>gainFactorInformation	Signalled	Signalled	Computed	Computed
>>>>>>>>βc (FDD only)	11	11	N/A	N/A
>>>>>>>>βd	15	15	N/A	N/A
>>>>>>>>referenceTFCId	0	0	0	0
>>>>>>TFCS 3			(TF2, TF1, TF0)	(TF2, TF1, TF1, TF0)
>>>>>>>ctfc			5	11
>>>>>>>gainFactorInformation			Computed	Computed
>>>>>>>>referenceTFCId			0	0
>>>>>>TFCS 4			(TF0, TF0, TF1)	(TF0, TF0, TF0, TF1)
>>>>>>>ctfc			6	12
>>>>>>>gainFactorInformation			Computed	Computed
>>>>>>>>βc (FDD only)			N/A	N/A
>>>>>>>>βd			N/A	N/A
>>>>>>>>referenceTFCId			0	0

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech + 3.4 kbps signalling	12.2 kbps speech + 3.4 kbps signalling
>>>>>>TFCS 5			(TF1, TF0, TF1)	(TF1, TF0, TF0, TF1)
>>>>>>>ctfc			7	13
>>>>>>>gainFactorInformation			Computed	Computed
>>>>>>>>referenceTFCId			0	0
>>>>>>TFCS 6			(TF2, TF1, TF1)	(TF2, TF1, TF1, TF1)
>>>>>>>ctfc			11	23
>>>>>>>gainFactorInformation			Signalled	Signalled
>>>>>>>>βc (FDD only)			11	11
>>>>>>>>βd			15	15
>>>>>>>>referenceTFCId			0	0
dl-CommonTransChInfo				
>tfcs-SignallingMode	Same as UL	Same as UL	Same as UL	Same as UL
PhyCH INFORMATION FDD				
UL-DPCH-InfoPredef				
>ul-DPCH-PowerControlInfo				
>>powerControlAlgorithm	Algorithm 1	Algorithm 1	Algorithm 1	Algorithm 1
>>>tpcStepSize	1	1	1	1
>tfci-Existence	TRUE	TRUE	TRUE	TRUE
>puncturingLimit	1	1	1	0.88
DL-CommonInformationPredef				
>dl-DPCH-InfoCommon				
>>spreadingFactor	256	128	128	128
>>tfci-Existence	FALSE	FALSE	FALSE	FALSE
>>pilotBits	4	4	4	4
>>positionFixed	N/A	N/A	Fixed	Fixed
PhyCH INFORMATION 3.84 Mcps TDD				
UL-DPCH-InfoPredef				
>ul-DPCH-PowerControlInfo				
>>dpch-ConstantValue	0	0	0	0
>commonTimeslotInfo				
>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>tfci-Coding	4	4	16	16
>>puncturingLimit	1	0.92	0.52	0.88
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
DL-CommonInformationPredef				
>dl-DPCH-InfoCommon				
>>commonTimeslotInfo				
>>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>>tfci-Coding	4	4	16	16
>>>puncturingLimit	1	0.92	0.52	0.92
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
PhyCH INFORMATION 1.28 Mcps TDD				
UL-DPCH-InfoPredef				
>commonTimeslotInfo				
>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>tfci-Coding	4	4	16	16

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech + 3.4 kbps signalling	12.2 kbps speech + 3.4 kbps signalling
>>puncturingLimit	1	0.64	0.80	0.60
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
DL-CommonInformationPredef				
>dl-DPCH-InfoCommon				
>>commonTimeslotInfo				
>>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>>tfci-Coding	4	4	16	16
>>>puncturingLimit	1	0.64	0.80	0.60
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1

Configuration	28.8 kbps conv. CS- data + 3.4 kbps signalling	32 kbps conv. CS-data + 3.4 kbps signalling	64kbps conv. CS-data + 3.4 kbps signalling	14.4 kbps streaming CS-data + 3.4 kbps signalling
Ref 34.108	12	14	13	15
Default configuration identity	4	5	6	7
RB INFORMATION				
rb-Identity	RB1: 1, RB2: 2, RB3: 3, RB5: 5	RB1: 1, RB2: 2, RB3: 3, RB5: 5	RB1: 1, RB2: 2, RB3: 3, RB5: 5	RB1: 1, RB2: 2, RB3: 3, RB5: 5
rlc-InfoChoice	Rlc-info	Rlc-info	Rlc-info	Rlc-info
>ul-RLC-Mode	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM
>>transmissionRLC-DiscardMode	RB1: N/A RB2- RB3: NoDiscard RB5: N/A	RB1: N/A RB2- RB3: NoDiscard RB5: N/A	RB1: N/A RB2- RB3: NoDiscard RB5: N/A	RB1: N/A RB2- RB3: NoDiscard RB5: N/A
>>>maxDat	RB1: N/A RB2- RB3: 15 RB5: N/A	RB1: N/A RB2- RB3: 15 RB5: N/A	RB1: N/A RB2- RB3: 15 RB5: N/A	RB1: N/A RB2- RB3: 15 RB5: N/A
>>transmissionWindowSize	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5: N/A
>>timerRST	RB1: N/A RB2- RB3: 300 RB5: N/A	RB1: N/A RB2- RB3: 300 RB5: N/A	RB1: N/A RB2- RB3: 300 RB5: N/A	RB1: N/A RB2- RB3: 300 RB5: N/A
>>max-RST	RB1: N/A RB2- RB3: 1 RB5: N/A	RB1: N/A RB2- RB3: 1 RB5: N/A	RB1: N/A RB2- RB3: 1 RB5: N/A	RB1: N/A RB2- RB3: 1 RB5: N/A
>>pollingInfo	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A
>>>lastTransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>lastRetransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerPollPeriodic	RB2- RB3: 300	RB2- RB3: 300	RB2- RB3: 300	RB2- RB3: 300
>>segmentationIndication	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE
>dl-RLC-Mode	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM

Configuration	28.8 kbps conv. CS- data + 3.4 kbps signalling	32 kbps conv. CS-data + 3.4 kbps signalling	64kbps conv. CS-data + 3.4 kbps signalling	14.4 kbps streaming CS-data + 3.4 kbps signalling
>>inSequenceDelivery	RB1: N/A RB2- RB3: TRUE RB5: N/A	RB1: N/A RB2- RB3: TRUE RB5: N/A	RB1: N/A RB2- RB3: TRUE RB5: N/A	RB1: N/A RB2- RB3: TRUE RB5: N/A
>>receivingWindowSize	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5: N/A
>>dl-RLC-StatusInfo	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A
>>>timerStatusProhibit	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100
>>>missingPDU-Indicator	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerStatusPeriodic	RB2- RB3: 300	RB2- RB3: 300	RB2- RB3: 300	RB2- RB3: 300
>>segmentationIndication	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE
rb-MappingInfo				
>UL-LogicalChannelMappings	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel
>>ul-TransportChannelType	Dch	Dch	Dch	Dch
>>>transportChannelIdentity	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1
>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A
>>rlc-SizeList	RB1- RB3: configured RB5: N/A	RB1- RB3: configured RB5: N/A	RB1- RB3: configured RB5: N/A	RB1- RB3: configured RB5: N/A
>>mac-LogicalChannelPriority	RB1: 1, RB2: 2, RB3: 3 RB5: 5	RB1: 1, RB2: 2, RB3: 3 RB5: 5	RB1: 1, RB2: 2, RB3: 3 RB5: 5	RB1: 1, RB2: 2, RB3: 3 RB5: 5
>DL-logicalChannelMappingList				
>>Mapping option 1	One mapping option	One mapping option	One mapping option	One mapping option
>>>dl-TransportChannelType	Dch	Dch	Dch	Dch
>>>>transportChannelIdentity	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1
>>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A
TrCH INFORMATION PER TrCH				
UL-AddReconfTransChInfoList				
>Uplink transport channel type	dch	dch	dch	dch
>transportChannelIdentity	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2
>transportFormatSet	DedicatedTransChTFS	DedicatedTransChTFS	DedicatedTransChTFS	DedicatedTransChTFS
>>dynamicTF-information				
>>>tf0/ tf0,1	TrCH1: (0x576, 1x576, 2x576) TrCH2: (0x144, 1x144)	TrCH1: (0x640, 1x640) TrCH2: (0x144, 1x144)	TrCH1: (0x640, 2x640) TrCH2: (0x144, 1x144)	TrCH1: (0x576, 1x576) TrCH2: (0x144, 1x144)
>>>>rlcSize	TrCH1: OctetMode TrCH2:BitMode	TrCH1: OctetMode TrCH2:BitMode	TrCH1: OctetMode TrCH2:BitMode	TrCH1: OctetMode TrCH2:BitMode

Configuration	28.8 kbps conv. CS- data + 3.4 kbps signalling	32 kbps conv. CS-data + 3.4 kbps signalling	64kbps conv. CS-data + 3.4 kbps signalling	14.4 kbps streaming CS-data + 3.4 kbps signalling
>>>>>sizeType	TrCH1: type 2, part1= 11, part2= 2 (576) TrCH2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 11, part2= 2 (640) TrCH2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 11, part2= 2 (640) TrCH2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 9, part2= 2 (576) TrCH2: type 2, part1= 2, part2= 0 (144)
>>>>numberOfTbSizeList	TrCH1: Zero,1, 2 (4) TrCH2: Zero, one	TrCH1: Zero, one TrCH2: Zero, one	TrCH1: Zero, 2 (4) TrCH2: Zero, one	TrCH1: Zero, one, TrCH2: Zero, one
>>>>logicalChannelList	All	All	All	All
>>semiStaticTF-Information				
>>>tti	TrCH1: 40 TrCH2: 40	TrCH1: 20 TrCH2: 40	TrCH1: 20 TrCH2: 40	TrCH1: 40 TrCH2: 40
>>>channelCodingType	TrCH1: Turbo TrCH2: Convolutional	TrCH1: Turbo TrCH2: Convolutional	TrCH1: Turbo TrCH2: Convolutional	TrCH1: Turbo TrCH2: Convolutional
>>>>codingRate	TrCH1: N/A TrCH2: Third	TrCH1: N/A TrCH2: Third	TrCH1: N/A TrCH2: Third	TrCH1: N/A TrCH2: Third
>>>rateMatchingAttribute	TrCH1: 180 TrCH2: 160	TrCH1: 185 TrCH2: 160	TrCH1: 170 TrCH2: 160	TrCH1: 165 TrCH2: 160
>>>crc-Size	TrCH1: 16 TrCH2: 16	TrCH1: 16 TrCH2: 16	TrCH1: 16 TrCH2: 16	TrCH1: 16 TrCH2: 16
DL-AddReconfTransChInfoList				
>Downlink transport channel type	dch	dch	dch	dch
>dl-TransportChannelIdentity (should be as for UL)	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2
>tfs-SignallingMode	SameAsUL	SameAsUL	SameAsUL	SameAsUL
>>transportFormatSet				
>>>dynamicTF-information				
>>>>tf0/ tf0,1				
>>>>rlcSize				
>>>>>sizeType				
>>>>numberOfTbSizeList				
>>>>logicalChannelList				
>>ULTrCH-Id	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2
>dch-QualityTarget				
>>bler-QualityValue	TrCH1: $2x10^{-3}$ TrCH2: Absent	TrCH1: $2x10^{-3}$ TrCH2: Absent	TrCH1: $2x10^{-3}$ TrCH2: Absent	TrCH1: $1x10^{-2}$ TrCH2: Absent
TrCH INFORMATION, COMMON				
ul-CommonTransChInfo				
>tfcs-ID (TDD only)	1	1	1	1
>sharedChannelIndicator (TDD only)	FALSE	FALSE	FALSE	FALSE
>tfc-Subset	Absent, not required	Absent, not required	Absent, not required	Absent, not required
>ul-TFCS	Normal TFCI signalling	Normal TFCI signalling	Normal TFCI signalling	Normal TFCI signalling
>>explicitTFCS-ConfigurationMode	Complete	Complete	Complete	Complete
>>>ctfcSize	Ctfc2Bit	Ctfc2Bit	Ctfc2Bit	Ctfc4Bit
>>>>TFCS representation	Addition	Addition	Addition	Addition
>>>>>TFCS list				
>>>>>>TFCS 1	(TF0, TF0)	(TF0, TF0)	(TF0, TF0)	(TF0, TF0)
>>>>>>>ctfc	0	0	0	0
>>>>>>>gainFactorInformation	Computed	Computed	Computed	Computed
>>>>>>>>referenceTFCId	0	0	0	0

Configuration	28.8 kbps conv. CS- data + 3.4 kbps signalling	32 kbps conv. CS-data + 3.4 kbps signalling	64kbps conv. CS-data + 3.4 kbps signalling	14.4 kbps streaming CS-data + 3.4 kbps signalling
>>>>>>TFCS 2	(TF1, TF0)	(TF1, TF0)	(TF1, TF0)	(TF1, TF0)
>>>>>>>ctfc	1	1	1	1
>>>>>>>gainFactorInformation	Computed	Computed	Computed	Computed
>>>>>>>>βc (FDD only)	N/A	N/A	N/A	N/A
>>>>>>>>βd	N/A	N/A	N/A	N/A
>>>>>>>>referenceTFCId	0	0	0	0
>>>>>>TFCS 3	(TF2, TF0)	(TF0, TF1)	(TF0, TF1)	(TF0, TF1)
>>>>>>>ctfc	2	2	2	2
>>>>>>>gainFactorInformation	Computed	Computed	Computed	Computed
>>>>>>>>referenceTFCId	0	0	0	0
>>>>>>TFCS 4	(TF0, TF1)	(TF1, TF1)	(TF1, TF1)	(TF1, TF1)
>>>>>>>ctfc	3	3	3	3
>>>>>>>gainFactorInformation	Computed	Signalled	Signalled	Signalled
>>>>>>>>βc (FDD only)	N/A	8	8	11
>>>>>>>>βd	N/A	15	15	15
>>>>>>>>referenceTFCId	0	0	0	0
>>>>>>TFCS 5	(TF1, TF1)	N/A	N/A	
>>>>>>>ctfc	4			
>>>>>>>gainFactorInformation	Computed			
>>>>>>>>referenceTFCId	0			
>>>>>>TFCS 6	(TF2, TF1)	N/A	N/A	
>>>>>>>ctfc	5			
>>>>>>>gainFactorInformation	Signalled			
>>>>>>>>βc (FDD only)	8			
>>>>>>>>βd	15			
>>>>>>>>referenceTFCId	0			
>>>>>>TFCS 7				
>>>>>>>ctfc				
>>>>>>>gainFactorInformation				
>>>>>>>>referenceTFCId				
>>>>>>TFCS 8				
>>>>>>>ctfc				
>>>>>>>gainFactorInformation				
>>>>>>>>referenceTFCId				
>>>>>>TFCS 9				
>>>>>>>ctfc				
>>>>>>>gainFactorInformation				
>>>>>>>>referenceTFCId				
>>>>>>TFCS 10				
>>>>>>>ctfc				
>>>>>>>gainFactorInformation				
>>>>>>>>βc (FDD only)				
>>>>>>>>βd				
>>>>>>>>referenceTFCId				
dl-CommonTransChInfo				
>tfcs-SignallingMode	Same as UL	Same as UL	Same as UL	Same as UL
PhyCH INFORMATION FDD				
UL-DPCH-InfoPredef				

Configuration	28.8 kbps conv. CS- data + 3.4 kbps signalling	32 kbps conv. CS-data + 3.4 kbps signalling	64kbps conv. CS-data + 3.4 kbps signalling	14.4 kbps streaming CS-data + 3.4 kbps signalling
>ul-DPCH-PowerControlInfo				
>>powerControlAlgorithm	Algorithm 1	Algorithm 1	Algorithm 1	Algorithm 1
>>>tpcStepSize	1	1	1	1
>tfci-Existence	TRUE	TRUE	TRUE	TRUE
>puncturingLimit	0.92	0.8	0.92	1
DL-CommonInformationPredef				
>dl-DPCH-InfoCommon				
>>spreadingFactor	64	64	32	128
>>tfci-Existence	TRUE	TRUE	TRUE	TRUE
>>pilotBits	8	8	8	8
>>positionFixed	Flexible	Flexible	Flexible	Flexible
PhyCH INFORMATION 3.84 Mcps TDD				
UL-DPCH-InfoPredef				
>ul-DPCH-PowerControlInfo				
>>dpch-ConstantValue	0	0	0	0
>commonTimeslotInfo				
>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>tfci-Coding	16	8	8	8
>>puncturingLimit	0.44	0.8	0.56	0.8
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
DL-CommonInformationPredef				
>dl-DPCH-InfoCommon				
>>commonTimeslotInfo				
>>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>>tfci-Coding	16	8	8	8
>>>puncturingLimit	0.44	0.64	0.56	0.8
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
PhyCH INFORMATION 1.28 Mcps TDD				
UL-DPCH-InfoPredef				
>commonTimeslotInfo				
>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>tfci-Coding	16	8	8	8
>>puncturingLimit	0.64	0.60	0.64	1
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
DL-CommonInformationPredef				
>dl-DPCH-InfoCommon				
>>commonTimeslotInfo				
>>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>>tfci-Coding	16	8	8	8
>>>puncturingLimit	0.64	0.60	0.64	0.88
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling	12.2 kbps speech(multimode) + 3.4 kbps signalling
Ref 34.108	16	17	1a
Default configuration identity	8	9	10
RB INFORMATION			
rb-Identity	RB1: 1, RB2: 2, RB3: 3, RB5: 5	RB1: 1, RB2: 2, RB3: 3, RB5: 5	RB1: 1, RB2: 2, RB3: 3, RB5: 5, RB6: 6, RB7: 7
rlc-InfoChoice	Rlc-info	Rlc-info	Rlc-info
>ul-RLC-Mode	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5-RB7: TM
>>transmissionRLC-DiscardMode	RB1: N/A RB2- RB3: NoDiscard RB5: N/A	RB1: N/A RB2- RB3: NoDiscard RB5: N/A	RB1: N/A RB2- RB3: NoDiscard RB5- RB7: N/A
>>>maxDat	RB1: N/A RB2- RB3: 15 RB5: N/A	RB1: N/A RB2- RB3: 15 RB5: N/A	RB1: N/A RB2- RB3: 15 RB5- RB7: N/A
>>transmissionWindowSize	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5- RB7: N/A
>>timerRST	RB1: N/A RB2- RB3: 300 RB5: N/A	RB1: N/A RB2- RB3: 300 RB5: N/A	RB1: N/A RB2- RB3: 300 RB5- RB7: N/A
>>max-RST	RB1: N/A RB2- RB3: 1 RB5: N/A	RB1: N/A RB2- RB3: 1 RB5: N/A	RB1: N/A RB2- RB3: 1 RB5- RB7: N/A
>>pollingInfo	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5- RB7: N/A
>>>lastTransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>lastRetransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerPollPeriodic	RB2- RB3: 300	RB2- RB3: 300	RB2- RB3: 300
>>segmentationIndication	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5- RB7: FALSE
>dl-RLC-Mode	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5- RB7: TM
>>inSequenceDelivery	RB1: N/A RB2- RB3: TRUE RB5: N/A	RB1: N/A RB2- RB3: TRUE RB5: N/A	RB1: N/A RB2- RB3: TRUE RB5- RB7: N/A
>>receivingWindowSize	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5- RB7: N/A
>>dl-RLC-StatusInfo	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5- RB7: N/A
>>>timerStatusProhibit	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100
>>>missingPDU-Indicator	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerStatusPeriodic	RB2- RB3: 300	RB2- RB3: 300	RB2- RB3: 300
>>segmentationIndication	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5- RB7: FALSE

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling	12.2 kbps speech(multimode) + 3.4 kbps signalling
rb-MappingInfo			
>UL-LogicalChannelMappings	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel
>>ul-TransportChannelType	Dch	Dch	Dch
>>>transportChannelIdentity	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3
>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A
>>rlc-SizeList	RB1- RB3: configured RB5: N/A	RB1- RB3: configured RB5: N/A	RB1- RB3: configured RB5- RB7: N/A
>>mac-LogicalChannelPriority	RB1: 1, RB2: 2, RB3: 3 RB5: 5	RB1: 1, RB2: 2, RB3: 3 RB5: 5	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: 5
>DL-logicalChannelMappingList			
>>Mapping option 1	One mapping option	One mapping option	One mapping option
>>>dl-TransportChannelType	Dch	Dch	Dch
>>>>transportChannelIdentity	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3
>>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A
TrCH INFORMATION PER TrCH			
UL-AddReconfTransChInfoList			
>Uplink transport channel type	dch	dch	dch
>transportChannelIdentity	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>transportFormatSet	DedicatedTransChTFS	DedicatedTransChTFS	DedicatedTransChTFS
>>dynamicTF-information			
>>>tf0/ tf0,1	TrCH1: (0x576, 1x576, 2x576) TrCH2: (0x144, 1x144)	TrCH1: (0x576, 1x576, 2x576, 3x576, 4x576) TrCH2: (0x144, 1x144)	TrCH1: (0x81) TrCH2: (0x 103 TrCH3: (0x 60) TrCH4: (0x144)
>>>>rlcSize	TrCH1: OctetMode TrCH2:BitMode	TrCH1: OctetMode TrCH2:BitMode	BitMode
>>>>>sizeType	TrCH1: type 2, part1= 9, part2= 2 (576) TrCH2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 9, part2= 2 (576) TrCH2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 1: 81 TrCH2: type 1: 103 TrCH3: type 1: 60 TrCH4: 2: type 2, part1= 2, part2= 0 (144)
>>>>numberOfTbSizeList	TrCH1: Zero, one, 2 TrCH2: Zero, one	TrCH1: Zero, one, 2, 3, 4 TrCH2: Zero, one	TrCH1-4: Zero
>>>>logicalChannelList	All	All	All
>>>tf 1			TrCH1: (1x39) TrCH2: (1x53) TrCH3: (1x60) TrCH4: (1x144)

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling	12.2 kbps speech(multimode) + 3.4 kbps signalling
>>>>numberOfTransportBlocks			TrCH1-3: One
>>>>rlc-Size			TrCH1-3: BitMode
>>>>>sizeType			TrCH1: 1: 39 TrCH2: 1: 53 TrCH3: 1: 60
>>>>numberOfTbSizeList			TrCH1-3: One
>>>>logicalChannelList			TrCH1-3: all
>>>tf 2			TrCH1: (1x42) TrCH2: (1x63) TrCH3- TrCH4: N/A
>>>>numberOfTransportBlocks			TrCH1-2: One
>>>>rlc-Size			TrCH1: BitMode
>>>>>sizeType			TrCH1: type 1: 42 TrCH2: type 1: 63
>>>>numberOfTbSizeList			TrCH1-2: One
>>>>logicalChannelList			TrCH1: all
>>>tf 3			TrCH1: (1x55) TrCH2: (1x84) TrCH3- TrCH4: N/A
>>>>numberOfTransportBlocks			TrCH1-2: Zero
>>>>rlc-Size			TrCH1: BitMode
>>>>>sizeType			TrCH1: type 1: 55 TrCH2: type 1: 84
>>>>numberOfTbSizeList			TrCH1-2: One
>>>>logicalChannelList			TrCH1: all
>>>tf 4			TrCH1: (1x75) TrCH2: (1x103) TrCH3- TrCH4: N/A
>>>>numberOfTransportBlocks			TrCH1-2: One
>>>>rlc-Size			TrCH1: BitMode
>>>>>sizeType			TrCH1: type 1: 75 TrCH2: type 1: 103
>>>>numberOfTbSizeList			TrCH1-2: One
>>>>logicalChannelList			TrCH1: all
>>>tf 5			TrCH1: (1x81) TrCH2- TrCH4: N/A
>>>>numberOfTransportBlocks			TrCH1: One
>>>>rlc-Size			TrCH1: BitMode
>>>>>sizeType			TrCH1: type 1: 81
>>>>numberOfTbSizeList			TrCH1: One
>>>>logicalChannelList			TrCH1: all
>>semiStaticTF-Information			
>>>tti	TrCH1: 40 TrCH2: 40	TrCH1: 40 TrCH2: 40	TrCH1- TrCH3: 20 TrCH4: 40
>>>channelCodingType	TrCH1: Turbo TrCH2: Convolutional	TrCH1: Turbo TrCH2: Convolutional	Convolutional
>>>>codingRate	TrCH1: N/A TrCH2: Third	TrCH1: N/A TrCH2: Third	TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third
>>>rateMatchingAttribute	TrCH1: 155 TrCH2: 160	TrCH1: 145 TrCH2: 160	TrCH1: 200 TrCH2: 190 TrCH3: 235 TrCH4: 160

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling	12.2 kbps speech(multimode) + 3.4 kbps signalling
>>>crc-Size	TrCH1: 16 TrCH2: 16	TrCH1: 16 TrCH2: 16	TrCH1: 12 TrCH2- TrCH3: 0 TrCH4: 16
DL-AddReconfTransChInfoList			
>Downlink transport channel type	dch	dch	dch
>dl-TransportChannelIdentity (should be as for UL)	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>tfs-SignallingMode	SameAsUL	SameAsUL	Independent <Only tf0 on TrCH1 is different and shown below>
>>transportFormatSet			DedicatedTransChTFS
>>>dynamicTF-information			
>>>>tf0/ tf0,1			TrCH1: (1x0)
>>>>rlcSize			bitMode
>>>>>sizeType			TrCH1: type 1: 0
>>>>numberOfTbSizeList			TrCH1: One
>>>>logicalChannelList			All
>>ULTrCH-Id	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>dch-QualityTarget			
>>bler-QualityValue	TrCH1: $1x10^{-2}$ TrCH2: Absent	TrCH1: $1x10^{-2}$ TrCH2: Absent	TrCH1: $7x10^{-3}$ TrCH2- TrCH4: Absent
TrCH INFORMATION, COMMON			
ul-CommonTransChInfo			
>tfcs-ID (TDD only)	1	1	1
>sharedChannelIndicator (TDD only)	FALSE	FALSE	FALSE
>tfc-Subset	Absent, not required	Absent, not required	Absent, not required
>ul-TFCS	Normal TFCI signalling	Normal TFCI signalling	Normal TFCI signalling
>>explicitTFCS-ConfigurationMode	Complete	Complete	Complete
>>>ctfcSize	Ctfc4Bit	Ctfc4Bit	Ctfc8Bit
>>>>TFCS representation	Addition	Addition	Addition
>>>>>TFCS list			
>>>>>>TFCS 1	(TF0, TF0)	(TF0, TF0)	(TF0, TF0, TF0, TF0)
>>>>>>>ctfc	0	0	0
>>>>>>>gainFactorInformation	Computed	Computed	Computed
>>>>>>>>referenceTFCId	0	0	0
>>>>>>TFCS 2	(TF1, TF0)	(TF1, TF0)	(TF1, TF0, TF0, TF0)
>>>>>>>ctfc	1	1	1
>>>>>>>gainFactorInformation	Computed	Computed	Computed
>>>>>>>>βc (FDD only)	N/A	N/A	N/A
>>>>>>>>βd	N/A	N/A	N/A
>>>>>>>>referenceTFCId	0	0	0
>>>>>>TFCS 3	(TF2, TF0)	(TF2, TF0)	(TF2, TF1, TF0, TF0)
>>>>>>>ctfc	2	2	8

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling	12.2 kbps speech(multimode) + 3.4 kbps signalling
>>>>>>>gainFactorInformation	Computed	Computed	Computed
>>>>>>>>referenceTFCId	0	0	0
>>>>>>TFCS 4	(TF0, TF1)	(TF3, TF0)	(TF3, TF2, TF0, TF0)
>>>>>>>ctfc	3	3	15
>>>>>>>gainFactorInformation	Computed	Computed	Computed
>>>>>>>>βc (FDD only)	N/A	N/A	N/A
>>>>>>>>βd	N/A	N/A	N/A
>>>>>>>>referenceTFCId	0	0	0
>>>>>>TFCS 5	(TF1, TF1)	(TF4, TF0)	(TF4, TF3, TF0, TF0)
>>>>>>>ctfc	4	4	22
>>>>>>>gainFactorInformation	Computed	Computed	Computed
>>>>>>>>referenceTFCId	0	0	0
>>>>>>TFCS 6	(TF2, TF1)	(TF0, TF1)	(TF5, TF4, TF1, TF0)
>>>>>>>ctfc	5	5	59
>>>>>>>gainFactorInformation	Signalled	Computed	Computed
>>>>>>>>βc (FDD only)	8	N/A	N/A
>>>>>>>>βd	15	N/A	N/A
>>>>>>>>referenceTFCId	0	0	0
>>>>>>TFCS 7		(TF1, TF1)	(TF0,TF0,TF0,TF1)
>>>>>>>ctfc		6	60
>>>>>>>gainFactorInformation		Computed	Computed
>>>>>>>>referenceTFCId		0	0
>>>>>>TFCS 8		(TF2, TF1)	(TF1,TF0,TF0,TF1)
>>>>>>>ctfc		7	61
>>>>>>>gainFactorInformation		Computed	Computed
>>>>>>>>referenceTFCId		0	0
>>>>>>TFCS 9		(TF3, TF1)	(TF2,TF1,TF0,TF1)
>>>>>>>ctfc		8	68
>>>>>>>gainFactorInformation		Computed	Computed
>>>>>>>>referenceTFCId		0	0
>>>>>>TFCS 10		(TF4, TF1)	(TF3,TF2,TF0,TF1)
>>>>>>>ctfc		9	75
>>>>>>>gainFactorInformation		Signalled	Computed
>>>>>>>>βc (FDD only)		8	N/A
>>>>>>>>βd		15	N/A
>>>>>>>>referenceTFCId		0	0
>>>>>>TFCS 11			(TF4,TF3,TF0,TF1)
>>>>>>>ctfc			82
>>>>>>>gainFactorInformation			Computed
>>>>>>>>referenceTFCId			0
>>>>>>TFCS 12			(TF5,TF4,TF1,TF1)
>>>>>>>ctfc			119
>>>>>>>gainFactorInformation			Signalled
>>>>>>>>βc (FDD only)			11
>>>>>>>>βd			15
>>>>>>>>referenceTFCId			0

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling	12.2 kbps speech(multimode) + 3.4 kbps signalling
dl-CommonTransChInfo			
>tfcs-SignallingMode	Same as UL	Same as UL	Same as UL
PhyCH INFORMATION FDD			
UL-DPCH-InfoPredef			
>ul-DPCH-PowerControlInfo			
>>powerControlAlgorithm	Algorithm 1	Algorithm 1	Algorithm 1
>>>tpcStepSize	1	1	1
>tfci-Existence	TRUE	TRUE	TRUE
>puncturingLimit	1	1	0.88
DL-CommonInformationPredef			
>dl-DPCH-InfoCommon			
>>spreadingFactor	64	32	128
>>tfci-Existence	TRUE	TRUE	FALSE
>>pilotBits	8	8	4
>>positionFixed	Flexible	Flexible	Fixed
PhyCH INFORMATION 3.84 Mcps TDD			
UL-DPCH-InfoPredef			
>ul-DPCH-PowerControlInfo			
>>dpch-ConstantValue	0	0	0
>commonTimeslotInfo			
>>secondInterleavingMode	frameRelated	frameRelated	frameRelated
>>tfci-Coding	16	16	16
>>puncturingLimit	0.44	0.48	0.88
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
DL-CommonInformationPredef			
>dl-DPCH-InfoCommon			
>>commonTimeslotInfo			
>>>secondInterleavingMode	frameRelated	frameRelated	frameRelated
>>>tfci-Coding	16	16	16
>>>puncturingLimit	0.44	0.48	0.92
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
PhyCH INFORMATION 1.28 Mcps TDD			
UL-DPCH-InfoPredef			
>commonTimeslotInfo			
>>secondInterleavingMode	frameRelated	frameRelated	
>>tfci-Coding	16	16	
>>puncturingLimit	0.64	0.72	
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	
DL-CommonInformationPredef			
>dl-DPCH-InfoCommon			
>>commonTimeslotInfo			
>>>secondInterleavingMode	frameRelated	frameRelated	frameRelated

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling	12.2 kbps speech(multimode) + 3.4 kbps signalling
>>>tfci-Coding	16	16	16
>>>puncturingLimit	0.64	0.72	0.92
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1

Configuration	10.2/6.7/5.9/4.75 kbps speech + 3.4 kbps signalling	7.4/6.7/5.9/4.75 kbps speech + 3.4 kbps signalling
Ref 34.108	N/A	N/A
Default configuration identity	11	12
RB INFORMATION		
rb-Identity	RB1: 1, RB2: 2, RB3: 3, RB5: 5, RB6: 6, RB7: 7, RB8: 8	RB1: 1, RB2: 2, RB3: 3, RB5: 5, RB6: 6, RB7: 7
rlc-InfoChoice	Rlc-info	Rlc-info
>ul-RLC-Mode	RB1: UM RB2- RB3: AM RB5-RB7: TM	RB1: UM RB2- RB3: AM RB5-RB6: TM
>>transmissionRLC-DiscardMode	RB1: N/A RB2- RB3: NoDiscard RB5- RB7: N/A	RB1: N/A RB2- RB3: NoDiscard RB5- RB6: N/A
>>>maxDat	RB1: N/A RB2- RB3: 15 RB5- RB7: N/A	RB1: N/A RB2- RB3: 15 RB5- RB6: N/A
>>transmissionWindowSize	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5- RB7: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5- RB6: N/A
>>timerRST	RB1: N/A RB2- RB3: 300 RB5- RB7: N/A	RB1: N/A RB2- RB3: 300 RB5- RB6: N/A
>>max-RST	RB1: N/A RB2- RB3: 1 RB5- RB7: N/A	RB1: N/A RB2- RB3: 1 RB5- RB6: N/A
>>pollingInfo	RB1: N/A RB2- RB3: as below RB5- RB7: N/A	RB1: N/A RB2- RB3: as below RB5- RB6: N/A
>>>lastTransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>lastRetransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerPollPeriodic	RB2- RB3: 300	RB2- RB3: 300
>>segmentationIndication	RB1- RB3: N/A RB5- RB7: FALSE	RB1- RB3: N/A RB5- RB6: FALSE
>dl-RLC-Mode	RB1: UM RB2- RB3: AM RB5- RB7: TM RB8: TM	RB1: UM RB2- RB3: AM RB5- RB6: TM RB7: TM
>>inSequenceDelivery	RB1: N/A RB2- RB3: TRUE RB5- RB8: N/A	RB1: N/A RB2- RB3: TRUE RB5- RB7: N/A
>>receivingWindowSize	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5- RB8: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5- RB7: N/A
>>dl-RLC-StatusInfo	RB1: N/A RB2- RB3: as below RB5- RB8: N/A	RB1: N/A RB2- RB3: as below RB5- RB7: N/A
>>>timerStatusProhibit	RB2- RB3: 100	RB2- RB3: 100
>>>missingPDU-Indicator	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerStatusPeriodic	RB2- RB3: 300	RB2- RB3: 300

>>segmentationIndication	RB1- RB3: N/A RB5- RB8: FALSE	RB1- RB3: N/A RB5- RB7: FALSE
rb-MappingInfo		
>UL-LogicalChannelMappings	OneLogicalChannel	OneLogicalChannel
>>ul-TransportChannelType	Dch	Dch
>>>transportChannelIdentity	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3,	RB1- RB3: 3 RB5: 1, RB6: 2
>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB6: N/A
>>rlc-SizeList	RB1- RB3: configured RB5- RB7: N/A	RB1- RB3: configured RB5- RB6: N/A
>>mac-LogicalChannelPriority	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: 5	RB1: 1, RB2: 2, RB3: 3 RB5- RB6: 5
>DL-logicalChannelMappingList		
>>Mapping option 1	One mapping option	One mapping option
>>>dl-TransportChannelType	Dch	Dch
>>>>transportChannelIdentity	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3, RB8: 5	RB1- RB3: 3 RB5: 1, RB6: 2, RB7:4
>>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5- RB8: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A
TrCH INFORMATION PER TrCH		
UL-AddReconfTransChInfoList		
>Uplink transport channel type	dch	dch
>transportChannelIdentity	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4	TrCH1: 1, TrCH2: 2, TrCH3: 3
>transportFormatSet	DedicatedTransChTFS	DedicatedTransChTFS
>>dynamicTF-information		
>>>tf0/ tf0,1	TrCH1: (0x65) TrCH2: (0x 99) TrCH3: (0x 40, 1x40) TrCH4: (0x144, 1x144)	TrCH1: (0x61) TrCH2: (0x 87) TrCH3: (0x 144, 1x144)
>>>>rlcSize	BitMode	BitMode
>>>>>sizeType	TrCH1: type 1: 65 TrCH2: type 1: 99 TrCH3: type 1: 40 TrCH4: 2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 1: 61 TrCH2: type 1: 87 TrCH3: 2: type 2, part1= 2, part2= 0 (144)
>>>>numberOfTbSizeList	TrCH1-2: Zero TrCH3-4: Zero, one	TrCH1-2: Zero TrCH3: Zero, one
>>>>logicalChannelList	All	All
>>>tf 1	TrCH1: (1x39) TrCH2: (1x 53) TrCH3- TrCH4: N/A	TrCH1: (1x39) TrCH2: (1x53) TrCH3: N/A
>>>>numberOfTransportBlocks	TrCH1: One TrCH2: One	TrCH1: One TrCH2: One
>>>>rlc-Size	TrCH1-2: BitMode	TrCH1-2: BitMode
>>>>>sizeType	TrCH1: 1: 39 TrCH2: 1: 53	TrCH1: 1: 39 TrCH1: 1: 53
>>>>numberOfTbSizeList	TrCH1-2: One	TrCH1-2: One

>>>>logicalChannelList	TrCH1: all	TrCH1: all
>>>tf 2	TrCH1: (1x42) TrCH2: (1x63) TrCH3- TrCH4: N/A	TrCH1: (1x42) TrCH2: (1x63) TrCH3: N/A
>>>>numberOfTransportBlocks	TrCH1: One TrCh2: One	TrCH1: One TrCh2: One
>>>>rlc-Size	TrCH1: BitMode	TrCH1: BitMode
>>>>>sizeType	TrCH1: type 1: 42 TrCH2: type 1: 63	TrCH1: type 1: 42 TrCH2: type 1: 63
>>>>numberOfTbSizeList	TrCH1: One TrCH2: One	TrCH1: One TrCH2: One
>>>>logicalChannelList	TrCH1: all TrCH2: all	TrCH1: all TrCH2: all
>>>tf 3	TrCH1: (1x55) TrCH2: (1x76) TrCH3- TrCH4: N/A	TrCH1: (1x55) TrCH2: (1x76) TrCH3: N/A
>>>>numberOfTransportBlocks	TrCH1: One TrCh2: One	TrCH1: One TrCh2: One
>>>>rlc-Size	TrCH1: BitMode	TrCH1: BitMode
>>>>>sizeType	TrCH1: type 1: 55 TrCH2: type 1: 76	TrCH1: type 1: 55 TrCH2: type 1: 76
>>>>numberOfTbSizeList	TrCH1: One TrCH2: One	TrCH1: One TrCH2: One
>>>>logicalChannelList	TrCH1: all TrCH2: all	TrCH1: all TrCH2: all
>>>tf 4	TrCH1: (1x58) TrCH2: (1x99) TrCH3- TrCH4: N/A	TrCH1: (1x58) TrCH2: (1x87) TrCH3: N/A
>>>>numberOfTransportBlocks	TrCH1: One TrCh2: One	TrCH1: One TrCh2: One
>>>>rlc-Size	TrCH1: BitMode	TrCH1: BitMode
>>>>>sizeType	TrCH1: type 1: 58 TrCH2: type 1: 99	TrCH1: type 1: 58 TrCH2: type 1: 87
>>>>numberOfTbSizeList	TrCH1: One TrCH2: One	TrCH1: One TrCH2: One
>>>>logicalChannelList	TrCH1: all TrCH2: all	TrCH1: all TrCH2: all
>>>tf 5	TrCH1: (1x65) TrCH2- TrCH4: N/A	TrCH1: (1x61) TrCH2- TrCH4: N/A
>>>>numberOfTransportBlocks	TrCH1: One	TrCH1: One
>>>>rlc-Size	TrCH1: BitMode	TrCH1: BitMode
>>>>>sizeType	TrCH1: type 1: 42	TrCH1: type 1: 42
>>>>numberOfTbSizeList	TrCH1: One	TrCH1: One
>>>>logicalChannelList	TrCH1: all	TrCH1: all
>>semistaticTF-Information		
>>>tti	TrCH1- TrCH3: 20 TrCH4: 40	TrCH1- TrCH2: 20 TrCH3: 40
>>>channelCodingType	Convolutional	Convolutional
>>>>codingRate	TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third	TrCH1- TrCH2: Third TrCH3: Third
>>>rateMatchingAttribute	TrCH1: 200 TrCH2: 190 TrCH3: 235 TrCH4: 160	TrCH1: 200 TrCH2: 190 TrCH3: 160
>>>crc-Size	TrCH1: 12 TrCH2- TrCH3: 0 TrCH4: 16	TrCH1: 12 TrCH2: 0 TrCH3: 16
DL-AddReconfTransChInfoList		
>Downlink transport channel type	dch	dch
>dl-TransportChannelIdentity		

>tfs-SignallingMode	Independent <Only tf0 on TrCH1 and tf0/tf1 on TrCH5 are different and shown below>	Independent <Only tf0 on TrCH1 and tf0/tf1 on TrCH4 are different and shown below>
>>transportFormatSet		
>>>dynamicTF-information		
>>>>tf0/ tf0,1	TrCH1: (1x0) TrCH5: (0x3, 1x3)	TrCH1: (1x0) TrCH4: (0x3, 1x3)
>>>>rlcSize	BitMode	bitMode
>>>>>sizeType	TrCH1: type 1: 0 TrCH5: type 1: 3	TrCH1: type 1: 0 TrCH4: type 1: 3
>>>>numberOfTbSizeList	TrCH1: One TrCH5: Zero, one	TrCH1: One TrCH4: Zero, one
>>>>logicalChannelList	All	All
>>>semistaticTF-Information	same as UL except for TrCH5	same as DL except for TrCH4
>>>>tti	TrCH5: 20	TrCH4: 20
>>>>channelCodingType	Convolutional	Convolutional
>>>>>codingRate	TrCH5: Third	TrCH4: Third
>>>>rateMatchingAttribute	TrCH5: 200	TrCH4: 200
>>>>crc-Size	TrCH5: 12	TrCH4: 12
>>ULTrCH-Id	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4,	TrCH1: 1, TrCH2: 2, TrCH3: 3
>dch-QualityTarget		
>>bler-QualityValue	TrCH1: $7x10^{-3}$ TrCH2- TrCH5: Absent	TrCH1: $7x10^{-3}$ TrCH2- TrCH4: Absent
TrCH INFORMATION, COMMON		
ul-CommonTransChInfo		
>tfcs-ID (TDD only)	1	1
>sharedChannelIndicator (TDD only)	FALSE	FALSE
> tfc-Subset	Absent, not required	Absent, not required
>ul-TFCS	Normal TFCI signalling	Normal TFCI signalling
>>explicitTFCS-ConfigurationMode	Complete	Complete
>>>ctfcSize	Ctfc6Bit	Ctfc6Bit
>>>>TFCS representation	Addition	Addition
>>>>>TFC list		
>>>>>>TFC 1	(TF0, TF0, TF0, TF0)	(TF0, TF0, TF0)
>>>>>>>ctfc	0	0
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 2	(TF1, TF0, TF0, TF0)	(TF1, TF0, TF0)
>>>>>>>ctfc	1	1
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>βc (FDD only)	N/A	N/A
>>>>>>>>βd	N/A	N/A
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 3	(TF2, TF1, TF0, TF0)	(TF2, TF1, TF0)
>>>>>>>ctfc	8	8
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 4	(TF3, TF2, TF0, TF0)	(TF3, TF2, TF0)
>>>>>>>ctfc	15	15

>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>βc (FDD only)		
>>>>>>>>βd		
>>>>>>>referenceTFCId	0	0
>>>>>>TFC 5	(TF4, TF3, TF0, TF0)	(TF4, TF3, TF0)
>>>>>>>ctfc	22	22
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 6	(TF5, TF4, TF1, TF0)	(TF5, TF4, TF0)
>>>>>>>ctfc	59	29
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>βc (FDD only)		
>>>>>>>>βd		
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 7	(TF0, TF0, TF0, TF1)	(TF0, TF0, TF1)
>>>>>>>ctfc	60	30
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 8	(TF1, TF0, TF0, TF1)	(TF1, TF0, TF1)
>>>>>>>ctfc	61	31
>>>>>>>gainFactorInformation	computed	computed
>>>>>>>>βc (FDD only)		
>>>>>>>>βd		
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 9	(TF2, TF1, TF0, TF1)	(TF2, TF1, TF1)
>>>>>>>ctfc	68	38
>>>>>>>gainFactorInformation	computed	computed
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 10	(TF3, TF2, TF0, TF1)	(TF3, TF2, TF1)
>>>>>>>ctfc	75	45
>>>>>>>gainFactorInformation	computed	computed
>>>>>>>>βc (FDD only)		
>>>>>>>>βd		
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 11	(TF4, TF3, TF0, TF1)	(TF4, TF3, TF1)
>>>>>>>ctfc	82	52
>>>>>>>gainFactorInformation	computed	computed
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 12	(TF5, TF4, TF1, TF1)	(TF5, TF4, TF1)
>>>>>>>ctfc	97	59
>>>>>>>gainFactorInformation	signalled	signalled
>>>>>>>>βc (FDD only)	11	11
>>>>>>>>βd	15	15
>>>>>>>>referenceTFCId	0	0
> TFC subset list		
>>TFC subset 1	(speech rate 10.2)	(speech rate 7.4)

>>> Allowed transport format combination list	(TFC1, TFC2, TFC7, TFC8, TFC6, TFC12)	(TFC1, TFC2, TFC7, TFC8, TFC6, TFC12)
>>TFC subset 2	(speech rate 6.7)	(speech rate 6.7)
>>> Allowed transport format combination list	(TFC1, TFC2, TFC7, TFC8, TFC5, TFC11)	(TFC1, TFC2, TFC7, TFC8, TFC5, TFC11)
>>TFC subset 3	(speech rate 5.9)	(speech rate 5.9)
>>> Allowed transport format combination list	(TFC1, TFC2, TFC7, TFC8, TFC4, TFC10)	(TFC1, TFC2, TFC7, TFC8, TFC4, TFC10)
>>TFC subset 4	(speech rate 4.75)	(speech rate 4.75)
>>> Allowed transport format combination list	(TFC1, TFC2, TFC7, TFC8, TFC3, TFC9)	(TFC1, TFC2, TFC7, TFC8, TFC3, TFC9)
dl-CommonTransChInfo		
>tfcs-SignallingMode	Independent	Independent
ul-CommonTransChInfo		
>tfcs-ID (TDD only)	1	1
>sharedChannelIndicator (TDD only)	FALSE	FALSE
> tfc-Subset	Absent, not required	Absent, not required
>dl-TFCS	Normal TFCI signalling	Normal TFCI signalling
>>explicitTFCS-ConfigurationMode	Complete	Complete
>>>ctfcSize	Ctfc6Bit	Ctfc6Bit
>>>>TFCS representation	Addition	Addition
>>>>>TFCS list		
>>>>>>TFC 1	(TF0, TF0, TF0, TF0, TF0)	(TF0, TF0, TF0, TF0)
>>>>>>>ctfc	0	0
>>>>>>TFC 2	(TF1, TF0, TF0, TF0, TF0)	(TF1, TF0, TF0, TF0)
>>>>>>>ctfc	1	1
>>>>>>TFC 3	(TF2, TF1, TF0, TF0, TF0)	(TF2, TF1, TF0, TF0)
>>>>>>>ctfc	8	8
>>>>>>TFC 4	(TF3, TF2, TF0, TF0, TF0)	(TF3, TF2, TF0, TF0)
>>>>>>>ctfc	15	15
>>>>>>TFC 5	(TF4, TF3, TF0, TF0, TF0)	(TF4, TF3, TF0, TF0)
>>>>>>>ctfc	22	22
>>>>>>TFC 6	(TF5, TF4, TF1, TF0, TF0)	(TF5, TF4, TF0, TF0)
>>>>>>>ctfc	59	29
>>>>>>TFC 7	(TF0, TF0, TF0, TF1, TF0)	(TF0, TF0, TF1, TF0)
>>>>>>>ctfc	60	30
>>>>>>TFC 8	(TF1, TF0, TF0, TF1, TF0)	(TF1, TF0, TF1, TF0)
>>>>>>>ctfc	61	31
>>>>>>TFC 9	(TF2, TF1, TF0, TF1, TF0)	(TF2, TF1, TF1, TF0)
>>>>>>>ctfc	68	37
>>>>>>TFC 10	(TF3, TF2, TF0, TF1, TF0)	(TF3, TF2, TF1, TF0)
>>>>>>>ctfc	75	55
>>>>>>TFC 11	(TF4, TF3, TF0, TF1, TF0)	(TF4, TF3, TF1, TF0)
>>>>>>>ctfc	82	52
>>>>>>TFC 12	(TF5, TF4, TF1, TF1, TF0)	(TF5, TF4, TF1, TF0)
>>>>>>>ctfc	119	59

>>>>>>TFC 13	(TF0, TF0, TF0, TF0, TF1)	(TF0, TF0, TF0, TF1)
>>>>>>>ctfc	120	60
>>>>>>TFC 14	(TF1, TF0, TF0, TF0, TF1)	(TF1, TF0, TF0, TF1)
>>>>>>>ctfc	121	61
>>>>>>TFC 15	(TF2, TF1, TF0, TF0, TF1)	(TF2, TF1, TF0, TF1)
>>>>>>>ctfc	128	68
>>>>>>TFC 16	(TF3, TF2, TF0, TF0, TF1)	(TF3, TF2, TF0, TF1)
>>>>>>>ctfc	135	75
>>>>>>TFC 17	(TF4, TF3, TF0, TF0, TF1)	(TF4, TF3, TF0, TF1)
>>>>>>>ctfc	152	82
>>>>>>TFC 18	(TF5, TF4, TF1, TF0, TF1)	(TF5, TF4, TF0, TF1)
>>>>>>>ctfc	189	89
>>>>>>TFC 19	(TF0, TF0, TF0, TF1, TF1)	(TF0, TF0, TF1, TF1)
>>>>>>>ctfc	180	90
>>>>>>TFC 20	(TF1, TF0, TF0, TF1, TF1)	(TF1, TF0, TF1, TF1)
>>>>>>>ctfc	181	91
>>>>>>TFC 21	(TF2, TF1, TF0, TF1, TF1)	(TF2, TF1, TF1, TF1)
>>>>>>>ctfc	188	98
>>>>>>TFC 22	(TF3, TF2, TF0, TF1, TF1)	(TF3, TF2, TF1, TF1)
>>>>>>>ctfc	195	105
>>>>>>TFC 23	(TF4, TF3, TF0, TF1, TF1)	(TF4, TF3, TF1, TF1)
>>>>>>>ctfc	239	112
>>>>>>TFC 24	(TF5, TF4, TF1, TF1, TF1)	(TF5, TF4, TF1, TF1)
>>>>>>>ctfc	218	119
PhyCH INFORMATION FDD		
UL-DPCH-InfoPredef		
>ul-DPCH-PowerControlInfo		
>>powerControlAlgorithm	Algorithm 1	Algorithm 1
>>>tpcStepSize	1	1
>tfci-Existence	TRUE	TRUE
>puncturingLimit	0.88	0.88
DL-CommonInformationPredef		
>dl-DPCH-InfoCommon		
>>spreadingFactor	128	128
>>tfci-Existence	FALSE	FALSE
>>pilotBits	4	4
>>positionFixed	Fixed	Fixed
PhyCH INFORMATION 3.84 Mcps TDD		
UL-DPCH-InfoPredef		
>ul-DPCH-PowerControlInfo		
>>dpch-ConstantValue	0	0
>commonTimeslotInfo		
>>secondInterleavingMode	frameRelated	frameRelated
>>tfci-Coding	16	16
>>puncturingLimit	0.60	0.60
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1

DL-CommonInformationPredef		
>dl-DPCH-InfoCommon		
>>commonTimeslotInfo		
>>>secondInterleavingMode	frameRelated	frameRelated
>>>tfci-Coding	16	16
>>>puncturingLimit	0.60	0.60
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1
PhyCH INFORMATION 1.28 Mcps TDD		
UL-DPCH-InfoPredef		
>commonTimeslotInfo		
>>secondInterleavingMode	frame Related	frame Related
>>tfci-Coding	16	16
>>puncturingLimit	0.64	0.64
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1
DL-CommonInformationPredef		
>dl-DPCH-InfoCommon		
>>commonTimeslotInfo		
>>>secondInterleavingMode	frame Related	frame Related
>>>tfci-Coding	16	16
>>>puncturingLimit	0.64	0.64
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1

3GPP TSG-RAN2 Meeting #33 **Tdoc ⌘R2-023131**
Sophia Antipolis, France, 11th-15th November 2002

CR-Form-v7

CHANGE REQUEST

⌘ **25.331** **CR** **1766** ⌘ **rev** **-** ⌘ Current version: **5.2.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ [ ] ME [X] Radio Access Network [X] Core Network [ ]

Title:	⌘	RLC window size in default configurations
Source:	⌘	Ericsson
Work item code:	⌘	TEI
Date:	⌘	15 November 2002
Category:	⌘	**A**
Release:	⌘	Rel-5

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:
2 *(GSM Phase 2)*
R96 *(Release 1996)*
R97 *(Release 1997)*
R98 *(Release 1998)*
R99 *(Release 1999)*
Rel-4 *(Release 4)*
Rel-5 *(Release 5)*
Rel-6 *(Release 6)*

Reason for change:	⌘	The RLC window sizes on SRB2 and SRB3 in the default configuration used at handover from GSM where discussed at WG2 #32 (see R2-022651). The current RLC window sizes of 128 on the SRBs require 8 kbyte of RLC buffer memory. For low end UEs with 10kbyte RLC buffer memory, the remaining 2 kbyte memory is insufficient to setup SRB4 and a PS RAB. To solve the above problem it is proposed to lower the RLC window sizes from 128 to 32 for SRB2 and SRB3 in the default configurations, for UEs with 10 kbyte RLC memory. For UEs with larger RLC buffer memory, the current values are kept.
Summary of change:	⌘	The RLC window sizes for SRB2 and SRB3 are changed from 128 to 32 for UEs with 10 kbyte memory in the default configurations used at handover from GSM.
Consequences if not approved:	⌘	If no change is made, the functionality for low end UEs with 10kbyte RLC buffer memory will be limited. Handover from GSM is possible, but a subsequent setup of SRB4 and a PS RAB will lead to significantly lower performance.

Clauses affected:	⌘	13.7

Other specs affected: ⌘	Y	N		⌘
		X	Other core specifications	
	X		Test specifications	
		X	O&M Specifications	

Other comments: ⌘	

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

13.7 Parameter values for default radio configurations

The UE shall support the use of the default radio configurations that are specified in the following.

NOTE 1: These configurations are based on [41] and cover a number of RAB and signalling connection configurations.

In the table that is used to specify the parameter values for these default configurations, the following principles are used:

- Optional IEs that are not used are omitted;
- In case no parameter value is specified in a column, this means the value given the previous (left side) column applies.

NOTE 2: If needed, signalling radio bearer RB4 is established after the completion of handover.

NOTE 3: For each default configuration, the value of FDD, 3.84 Mcps TDD and 1.28 Mcps TDD parameters are specified. All parameters apply to FDD, 3.84 Mcps TDD and 1.28 Mcps TDD modes, unless explicitly stated otherwise. It should be noted that in this respect default configurations differ from pre-defined configurations, which only include parameter values for one mode.

NOTE 4: The transport format sizes, indicated in the following table, concern the RLC PDU size, since all configurations concern dedicated channels. The transport block sizes indicated in TS 34.108 are different since these include the size of the MAC header.

Configuration	**3.4 kbps signalling**	**13.6 kbps signalling**	**7.95 kbps speech + 3.4 kbps signalling**	**12.2 kbps speech + 3.4 kbps signalling**
Ref 34.108	2	3	6	4
Default configuration identity	0	1	2	3
RB INFORMATION				
rb-Identity	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3, RB5: 5, RB6: 6	RB1: 1, RB2: 2, RB3: 3, RB5: 5, RB6: 6, RB7: 7
rlc-InfoChoice	Rlc-info	Rlc-info	Rlc-info	Rlc-info
>ul-RLC-Mode	RB1: UM RB2- RB3: AM	RB1: UM RB2- RB3: AM	RB1: UM RB2- RB3: AM RB5-RB6: TM	RB1: UM RB2- RB3: AM RB5-RB7: TM
>>transmissionRLC-DiscardMode	RB1: N/A RB2- RB3: NoDiscard	RB1: N/A RB2- RB3: NoDiscard	RB1: N/A RB2- RB3: NoDiscard RB5- RB6: N/A	RB1: N/A RB2- RB3: NoDiscard RB5- RB7: N/A
>>>maxDat	RB1: N/A RB2- RB3: 15	RB1: N/A RB2- RB3: 15	RB1: N/A RB2- RB3: 15 RB5- RB6: N/A	RB1: N/A RB2- RB3: 15 RB5- RB7: N/A
>>transmissionWindowSize	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5- RB6: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5- RB7: N/A
>>timerRST	RB1: N/A RB2- RB3: 300	RB1: N/A RB2- RB3: 300	RB1: N/A RB2- RB3: 300 RB5- RB6: N/A	RB1: N/A RB2- RB3: 300 RB5- RB7: N/A
>>max-RST	RB1: N/A RB2- RB3: 1	RB1: N/A RB2- RB3: 1	RB1: N/A RB2- RB3: 1 RB5- RB6: N/A	RB1: N/A RB2- RB3: 1 RB5- RB7: N/A
>>pollingInfo	RB1: N/A RB2- RB3: as below	RB1: N/A RB2- RB3: as below	RB1: N/A RB2- RB3: as below RB5- RB6: N/A	RB1: N/A RB2- RB3: as below RB5- RB7: N/A

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech + 3.4 kbps signalling	12.2 kbps speech + 3.4 kbps signalling
>>>lastTransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>lastRetransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerPollPeriodic	RB2- RB3: 300	RB2- RB3: 100	RB2- RB3: 300	RB2- RB3: 300
>>segmentationIndication	RB1- RB3: N/A	RB1- RB3: N/A	RB1- RB3: N/A RB5- RB6: FALSE	RB1- RB3: N/A RB5- RB7: FALSE
>dl-RLC-Mode	RB1: UM RB2- RB3: AM	RB1: UM RB2- RB3: AM	RB1: UM RB2- RB3: AM RB5- RB6: TM	RB1: UM RB2- RB3: AM RB5- RB7: TM
>>inSequenceDelivery	RB1: N/A RB2- RB3: TRUE	RB1: N/A RB2- RB3: TRUE	RB1: N/A RB2- RB3: TRUE RB5- RB6: N/A	RB1: N/A RB2- RB3: TRUE RB5- RB7: N/A
>>receivingWindowSize	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5- RB6: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5- RB7: N/A
>>dl-RLC-StatusInfo	RB1: N/A RB2- RB3: as below	RB1: N/A RB2- RB3: as below	RB1: N/A RB2- RB3: as below RB5- RB6: N/A	RB1: N/A RB2- RB3: as below RB5- RB7: N/A
>>>timerStatusProhibit	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100
>>>missingPDU-Indicator	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerStatusPeriodic	RB2- RB3: 300	RB2- RB3: 100	RB2- RB3: 300	RB2- RB3: 300
>>segmentationIndication	RB1- RB3: N/A	RB1- RB3: N/A	RB1- RB3: N/A RB5- RB6: FALSE	RB1- RB3: N/A RB5- RB7: FALSE
rb-MappingInfo				
>UL-LogicalChannelMappings	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel
>>ul-TransportChannelType	Dch	Dch	Dch	Dch
>>>transportChannelIdentity	RB1- RB3: 1	RB1- RB3: 1	RB1- RB3: 3 RB5: 1, RB6: 2	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3
>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3 RB5- RB6: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A
>>rlc-SizeList	RB1- RB3: configured	RB1- RB3: configured	RB1- RB3: configured RB5- RB6: N/A	RB1- RB3: configured RB5- RB7: N/A
>>mac-LogicalChannelPriority	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3 RB5- RB6: 5	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: 5
>DL-logicalChannelMappingList				
>>Mapping option 1	One mapping option	One mapping option	One mapping option	One mapping option
>>>dl-TransportChannelType	Dch	Dch	Dch	Dch
>>>>transportChannelIdentity	RB1- RB3: 1	RB1- RB3: 1	RB1- RB3: 3 RB5: 1, RB6: 2	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3
>>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3 RB5- RB6: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A
TrCH INFORMATION PER TrCH				
UL-AddReconfTransChInfoList				
>Uplink transport channel type	dch	dch	dch	dch

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech + 3.4 kbps signalling	12.2 kbps speech + 3.4 kbps signalling
>transportChannelIdentity	TrCH1: 1	TrCH1: 1	TrCH1: 1, TrCH2: 2, TrCH3: 3	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>transportFormatSet	DedicatedTransChTFS	DedicatedTransChTFS	DedicatedTransChTFS	DedicatedTransChTFS
>>dynamicTF-information				
>>>tf0/ tf0,1	TrCH1: (0x144, 1x144)	TrCH1: (0x144, 1x144)	TrCH1: (0x75) TrCH2: (0x 84 1x84) TrCH3: (0x144, 1x144)	TrCH1: (0x81) TrCH2: (0x 103, 1x103) TrCH3: (0x 60, 1x60) TrCH4: (0x144, 1x144)
>>>>rlcSize	BitMode	BitMode	BitMode	BitMode
>>>>>sizeType	TrCH1: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 2, part2= 0 (144)	TrCH1: type 1: 75 TrCH2: type 1: 84 TrCH3: 2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 1: 81 TrCH2: type 1: 103 TrCH3: type 1: 60 TrCH4: 2: type 2, part1= 2, part2= 0 (144)
>>>>numberOfTbSizeList	TrCH1: Zero, one	TrCH1: Zero, one	TrCH1: Zero TrCH2-3: Zero, one	TrCH1: Zero TrCH2-4: Zero, one
>>>>logicalChannelList	All	All	All	All
>>>tf 1	N/A	N/A	TrCH1: (1x39) TrCH2- TrCH4: N/A	TrCH1: (1x39) TrCH2- TrCH4: N/A
>>>>numberOfTransportBlocks			TrCH1: One	TrCH1: One
>>>>rlc-Size			TrCH1: BitMode	TrCH1: BitMode
>>>>>sizeType			TrCH1: 1: 39	TrCH1: 1: 39
>>>>numberOfTbSizeList			TrCH1: One	TrCH1: One
>>>>logicalChannelList			TrCH1: all	TrCH1: all
>>>tf 2	N/A	N/A	TrCH1: (1x75) TrCH2- TrCH3: N/A	TrCH1: (1x81) TrCH2- TrCH4: N/A
>>>>numberOfTransportBlocks			TrCH1: Zero	TrCH1: Zero
>>>>rlc-Size			TrCH1: BitMode	TrCH1: BitMode
>>>>>sizeType			TrCH1: type 1: 75	TrCH1: type 1: 81
>>>>numberOfTbSizeList			TrCH1: One	TrCH1: One
>>>>logicalChannelList			TrCH1: all	TrCH1: all
>>semistaticTF-Information				
>>>tti	TrCH1: 40	TrCH1: 10	TrCH1- TrCH2: 20 TrCH3: 40	TrCH1- TrCH3: 20 TrCH4: 40
>>>channelCodingType	Convolutional	Convolutional	Convolutional	Convolutional
>>>>codingRate	TrCH1: Third	TrCH1: Third	TrCH1- TrCH2: Third TrCH3: Third	TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third
>>>rateMatchingAttribute	TrCH1: 160	TrCH1: 160	TrCH1: 200 TrCH2: 190 TrCH3: 160	TrCH1: 200 TrCH2: 190 TrCH3: 235 TrCH4: 160
>>>crc-Size	TrCH1: 16	TrCH1: 16	TrCH1: 12 TrCH2: 0 TrCH3: 16	TrCH1: 12 TrCH2- TrCH3: 0 TrCH4: 16
DL-AddReconfTransChInfoList				
>Downlink transport channel type	dch	dch	dch	dch
>dl-TransportChannelIdentity (should be as for UL)	TrCH1: 1	TrCH1: 1	TrCH1: 1, TrCH2: 2, TrCH3: 3	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech + 3.4 kbps signalling	12.2 kbps speech + 3.4 kbps signalling
>tfs-SignallingMode	SameAsUL	SameAsUL	Explicit <Only tf0 on TrCH1 is different and shown below>	Explicit <Only tf0 on TrCH1 is different and shown below>
>>transportFormatSet			DedicatedTransChTFS	DedicatedTransChTFS
>>>dynamicTF-information				
>>>>tf0/ tf0,1			TrCH1: (1x0)	TrCH1: (1x0)
>>>>rlcSize			BitMode	bitMode
>>>>>sizeType			TrCH1: type 1: 0	TrCH1: type 1: 0
>>>>numberOfTbSizeList			TrCH1: One	TrCH1: One
>>>>logicalChannelList			All	All
>>ULTrCH-Id	TrCH1: 1	TrCH1: 1	TrCH1: 1, TrCH2: 2, TrCH3: 3	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>dch-QualityTarget				
>>bler-QualityValue	TrCH1: $5x10^{-2}$	TrCH1: $5x10^{-2}$	TrCH1: $7x10^{-3}$ TrCH2- TrCH3: Absent	TrCH1: $7x10^{-3}$ TrCH2- TrCH4: Absent
TrCH INFORMATION, COMMON				
ul-CommonTransChInfo				
>tfcs-ID (TDD only)	1	1	1	1
>sharedChannelIndicator (TDD only)	FALSE	FALSE	FALSE	FALSE
>tfc-Subset	Absent, not required	Absent, not required	Absent, not required	Absent, not required
>ul-TFCS	Normal TFCI signalling	Normal TFCI signalling	Normal TFCI signalling	Normal TFCI signalling
>>explicitTFCS-ConfigurationMode	Complete	Complete	Complete	Complete
>>>ctfcSize	Ctfc2Bit	Ctfc2Bit	Ctfc4Bit	Ctfc6Bit
>>>>TFCS representation	Addition	Addition	Addition	Addition
>>>>>TFCS list				
>>>>>>TFCS 1	(TF0)	(TF0)	(TF0, TF0, TF0)	(TF0, TF0, TF0, TF0)
>>>>>>>ctfc	0	0	0	0
>>>>>>>gainFactorInformation	Computed	Computed	Computed	Computed
>>>>>>>>referenceTFCId	0	0	0	0
>>>>>>TFCS 2	(TF1)	(TF1)	(TF1, TF0, TF0)	(TF1, TF0, TF0, TF0)
>>>>>>>ctfc	1	1	1	1
>>>>>>>gainFactorInformation	Signalled	Signalled	Computed	Computed
>>>>>>>>βc (FDD only)	11	11	N/A	N/A
>>>>>>>>βd	15	15	N/A	N/A
>>>>>>>>referenceTFCId	0	0	0	0
>>>>>>TFCS 3			(TF2, TF1, TF0)	(TF2, TF1, TF1, TF0)
>>>>>>>ctfc			5	11
>>>>>>>gainFactorInformation			Computed	Computed
>>>>>>>>referenceTFCId			0	0
>>>>>>TFCS 4			(TF0, TF0, TF1)	(TF0, TF0, TF0, TF1)
>>>>>>>ctfc			6	12
>>>>>>>gainFactorInformation			Computed	Computed
>>>>>>>>βc (FDD only)			N/A	N/A
>>>>>>>>βd			N/A	N/A
>>>>>>>>referenceTFCId			0	0

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech + 3.4 kbps signalling	12.2 kbps speech + 3.4 kbps signalling
>>>>>>TFCS 5			(TF1, TF0, TF1)	(TF1, TF0, TF0, TF1)
>>>>>>>ctfc			7	13
>>>>>>>gainFactorInformation			Computed	Computed
>>>>>>>>referenceTFCId			0	0
>>>>>>TFCS 6			(TF2, TF1, TF1)	(TF2, TF1, TF1, TF1)
>>>>>>>ctfc			11	23
>>>>>>>gainFactorInformation			Signalled	Signalled
>>>>>>>>βc (FDD only)			11	11
>>>>>>>>βd			15	15
>>>>>>>>referenceTFCId			0	0
dl-CommonTransChInfo				
>tfcs-SignallingMode	Same as UL	Same as UL	Same as UL	Same as UL
PhyCH INFORMATION FDD				
UL-DPCH-InfoPredef				
>ul-DPCH-PowerControlInfo				
>>powerControlAlgorithm	Algorithm 1	Algorithm 1	Algorithm 1	Algorithm 1
>>>tpcStepSize	1	1	1	1
>tfci-Existence	TRUE	TRUE	TRUE	TRUE
>puncturingLimit	1	1	1	0.88
DL-CommonInformationPredef				
>dl-DPCH-InfoCommon				
>>spreadingFactor	256	128	128	128
>>tfci-Existence	FALSE	FALSE	FALSE	FALSE
>>pilotBits	4	4	4	4
>>positionFixed	N/A	N/A	Fixed	Fixed
PhyCH INFORMATION 3.84 Mcps TDD				
UL-DPCH-InfoPredef				
>ul-DPCH-PowerControlInfo				
>>dpch-ConstantValue	0	0	0	0
>commonTimeslotInfo				
>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>tfci-Coding	4	4	16	16
>>puncturingLimit	1	0.92	0.52	0.88
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
DL-CommonInformationPredef				
>dl-DPCH-InfoCommon				
>>commonTimeslotInfo				
>>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>>tfci-Coding	4	4	16	16
>>>puncturingLimit	1	0.92	0.52	0.92
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
PhyCH INFORMATION 1.28 Mcps TDD				
UL-DPCH-InfoPredef				
>commonTimeslotInfo				
>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>tfci-Coding	4	4	16	16

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech + 3.4 kbps signalling	12.2 kbps speech + 3.4 kbps signalling
>>puncturingLimit	1	0.64	0.80	0.60
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
DL-CommonInformationPredef				
>dl-DPCH-InfoCommon				
>>commonTimeslotInfo				
>>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>>tfci-Coding	4	4	16	16
>>>puncturingLimit	1	0.64	0.80	0.60
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1

Configuration	28.8 kbps conv. CS- data + 3.4 kbps signalling	32 kbps conv. CS-data + 3.4 kbps signalling	64kbps conv. CS-data + 3.4 kbps signalling	14.4 kbps streaming CS-data + 3.4 kbps signalling
Ref 34.108	12	14	13	15
Default configuration identity	4	5	6	7
RB INFORMATION				
rb-Identity	RB1: 1, RB2: 2, RB3: 3, RB5: 5	RB1: 1, RB2: 2, RB3: 3, RB5: 5	RB1: 1, RB2: 2, RB3: 3, RB5: 5	RB1: 1, RB2: 2, RB3: 3, RB5: 5
rlc-InfoChoice	Rlc-info	Rlc-info	Rlc-info	Rlc-info
>ul-RLC-Mode	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM
>>transmissionRLC-DiscardMode	RB1: N/A RB2- RB3: NoDiscard RB5: N/A	RB1: N/A RB2- RB3: NoDiscard RB5: N/A	RB1: N/A RB2- RB3: NoDiscard RB5: N/A	RB1: N/A RB2- RB3: NoDiscard RB5: N/A
>>>maxDat	RB1: N/A RB2- RB3: 15 RB5: N/A	RB1: N/A RB2- RB3: 15 RB5: N/A	RB1: N/A RB2- RB3: 15 RB5: N/A	RB1: N/A RB2- RB3: 15 RB5: N/A
>>transmissionWindowSize	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5: N/A
>>timerRST	RB1: N/A RB2- RB3: 300 RB5: N/A	RB1: N/A RB2- RB3: 300 RB5: N/A	RB1: N/A RB2- RB3: 300 RB5: N/A	RB1: N/A RB2- RB3: 300 RB5: N/A
>>max-RST	RB1: N/A RB2- RB3: 1 RB5: N/A	RB1: N/A RB2- RB3: 1 RB5: N/A	RB1: N/A RB2- RB3: 1 RB5: N/A	RB1: N/A RB2- RB3: 1 RB5: N/A
>>pollingInfo	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A
>>>lastTransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>lastRetransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerPollPeriodic	RB2- RB3: 300	RB2- RB3: 300	RB2- RB3: 300	RB2- RB3: 300
>>segmentationIndication	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE
>dl-RLC-Mode	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM

Configuration	28.8 kbps conv. CS- data + 3.4 kbps signalling	32 kbps conv. CS-data + 3.4 kbps signalling	64kbps conv. CS-data + 3.4 kbps signalling	14.4 kbps streaming CS-data + 3.4 kbps signalling
>>inSequenceDelivery	RB1: N/A RB2- RB3: TRUE RB5: N/A	RB1: N/A RB2- RB3: TRUE RB5: N/A	RB1: N/A RB2- RB3: TRUE RB5: N/A	RB1: N/A RB2- RB3: TRUE RB5: N/A
>>receivingWindowSize	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5: N/A
>>dl-RLC-StatusInfo	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A
>>>timerStatusProhibit	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100
>>>missingPDU-Indicator	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerStatusPeriodic	RB2- RB3: 300	RB2- RB3: 300	RB2- RB3: 300	RB2- RB3: 300
>>segmentationIndication	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE
rb-MappingInfo				
>UL-LogicalChannelMappings	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel
>>ul-TransportChannelType	Dch	Dch	Dch	Dch
>>>transportChannelIdentity	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1
>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A
>>rlc-SizeList	RB1- RB3: configured RB5: N/A	RB1- RB3: configured RB5: N/A	RB1- RB3: configured RB5: N/A	RB1- RB3: configured RB5: N/A
>>mac-LogicalChannelPriority	RB1: 1, RB2: 2, RB3: 3 RB5: 5	RB1: 1, RB2: 2, RB3: 3 RB5: 5	RB1: 1, RB2: 2, RB3: 3 RB5: 5	RB1: 1, RB2: 2, RB3: 3 RB5: 5
>DL-logicalChannelMappingList				
>>Mapping option 1	One mapping option	One mapping option	One mapping option	One mapping option
>>>dl-TransportChannelType	Dch	Dch	Dch	Dch
>>>>transportChannelIdentity	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1
>>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A
TrCH INFORMATION PER TrCH				
UL-AddReconfTransChInfoList				
>Uplink transport channel type	dch	dch	dch	dch
>transportChannelIdentity	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2
>transportFormatSet	DedicatedTransChTFS	DedicatedTransChTFS	DedicatedTransChTFS	DedicatedTransChTFS
>>dynamicTF-information				
>>>tf0/ tf0,1	TrCH1: (0x576, 1x576, 2x576) TrCH2: (0x144, 1x144)	TrCH1: (0x640, 1x640) TrCH2: (0x144, 1x144)	TrCH1: (0x640, 2x640) TrCH2: (0x144, 1x144)	TrCH1: (0x576, 1x576) TrCH2: (0x144, 1x144)
>>>>rlcSize	TrCH1: OctetMode TrCH2:BitMode	TrCH1: OctetMode TrCH2:BitMode	TrCH1: OctetMode TrCH2:BitMode	TrCH1: OctetMode TrCH2:BitMode

Configuration	28.8 kbps conv. CS- data + 3.4 kbps signalling	32 kbps conv. CS-data + 3.4 kbps signalling	64kbps conv. CS-data + 3.4 kbps signalling	14.4 kbps streaming CS-data + 3.4 kbps signalling
>>>>>sizeType	TrCH1: type 2, part1= 11, part2= 2 (576) TrCH2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 11, part2= 2 (640) TrCH2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 11, part2= 2 (640) TrCH2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 9, part2= 2 (576) TrCH2: type 2, part1= 2, part2= 0 (144)
>>>>numberOfTbSizeList	TrCH1: Zero,1, 2 (4) TrCH2: Zero, one	TrCH1: Zero, one TrCH2: Zero, one	TrCH1: Zero, 2 (4) TrCH2: Zero, one	TrCH1: Zero, one, TrCH2: Zero, one
>>>>logicalChannelList	All	All	All	All
>>semiStaticTF-Information				
>>>tti	TrCH1: 40 TrCH2: 40	TrCH1: 20 TrCH2: 40	TrCH1: 20 TrCH2: 40	TrCH1: 40 TrCH2: 40
>>>channelCodingType	TrCH1: Turbo TrCH2: Convolutional	TrCH1: Turbo TrCH2: Convolutional	TrCH1: Turbo TrCH2: Convolutional	TrCH1: Turbo TrCH2: Convolutional
>>>>codingRate	TrCH1: N/A TrCH2: Third	TrCH1: N/A TrCH2: Third	TrCH1: N/A TrCH2: Third	TrCH1: N/A TrCH2: Third
>>>rateMatchingAttribute	TrCH1: 180 TrCH2: 160	TrCH1: 185 TrCH2: 160	TrCH1: 170 TrCH2: 160	TrCH1: 165 TrCH2: 160
>>>crc-Size	TrCH1: 16 TrCH2: 16	TrCH1: 16 TrCH2: 16	TrCH1: 16 TrCH2: 16	TrCH1: 16 TrCH2: 16
DL-AddReconfTransChInfoList				
>Downlink transport channel type	dch	dch	dch	dch
>dl-TransportChannelIdentity (should be as for UL)	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2
>tfs-SignallingMode	SameAsUL	SameAsUL	SameAsUL	SameAsUL
>>transportFormatSet				
>>>dynamicTF-information				
>>>>tf0/ tf0,1				
>>>>rlcSize				
>>>>>sizeType				
>>>>numberOfTbSizeList				
>>>>logicalChannelList				
>>ULTrCH-Id	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2
>dch-QualityTarget				
>>bler-QualityValue	TrCH1: $2x10^{-3}$ TrCH2: Absent	TrCH1: $2x10^{-3}$ TrCH2: Absent	TrCH1: $2x10^{-3}$ TrCH2: Absent	TrCH1: $1x10^{-2}$ TrCH2: Absent
TrCH INFORMATION, COMMON				
ul-CommonTransChInfo				
>tfcs-ID (TDD only)	1	1	1	1
>sharedChannelIndicator (TDD only)	FALSE	FALSE	FALSE	FALSE
>tfc-Subset	Absent, not required	Absent, not required	Absent, not required	Absent, not required
>ul-TFCS	Normal TFCI signalling	Normal TFCI signalling	Normal TFCI signalling	Normal TFCI signalling
>>explicitTFCS-ConfigurationMode	Complete	Complete	Complete	Complete
>>>ctfcSize	Ctfc2Bit	Ctfc2Bit	Ctfc2Bit	Ctfc4Bit
>>>>TFCS representation	Addition	Addition	Addition	Addition
>>>>>TFCS list				
>>>>>>TFCS 1	(TF0, TF0)	(TF0, TF0)	(TF0, TF0)	(TF0, TF0)
>>>>>>>ctfc	0	0	0	0
>>>>>>>gainFactorInformation	Computed	Computed	Computed	Computed
>>>>>>>>referenceTFCId	0	0	0	0

Configuration	28.8 kbps conv. CS- data + 3.4 kbps signalling	32 kbps conv. CS-data + 3.4 kbps signalling	64kbps conv. CS-data + 3.4 kbps signalling	14.4 kbps streaming CS-data + 3.4 kbps signalling
>>>>>>TFCS 2	(TF1, TF0)	(TF1, TF0)	(TF1, TF0)	(TF1, TF0)
>>>>>>>ctfc	1	1	1	1
>>>>>>>gainFactorInformation	Computed	Computed	Computed	Computed
>>>>>>>>βc (FDD only)	N/A	N/A	N/A	N/A
>>>>>>>>βd	N/A	N/A	N/A	N/A
>>>>>>>>referenceTFCId	0	0	0	0
>>>>>>TFCS 3	(TF2, TF0)	(TF0, TF1)	(TF0, TF1)	(TF0, TF1)
>>>>>>>ctfc	2	2	2	2
>>>>>>>gainFactorInformation	Computed	Computed	Computed	Computed
>>>>>>>>referenceTFCId	0	0	0	0
>>>>>>TFCS 4	(TF0, TF1)	(TF1, TF1)	(TF1, TF1)	(TF1, TF1)
>>>>>>>ctfc	3	3	3	3
>>>>>>>gainFactorInformation	Computed	Signalled	Signalled	Signalled
>>>>>>>>βc (FDD only)	N/A	8	8	11
>>>>>>>>βd	N/A	15	15	15
>>>>>>>>referenceTFCId	0	0	0	0
>>>>>>TFCS 5	(TF1, TF1)	N/A	N/A	
>>>>>>>ctfc	4			
>>>>>>>gainFactorInformation	Computed			
>>>>>>>>referenceTFCId	0			
>>>>>>TFCS 6	(TF2, TF1)	N/A	N/A	
>>>>>>>ctfc	5			
>>>>>>>gainFactorInformation	Signalled			
>>>>>>>>βc (FDD only)	8			
>>>>>>>>βd	15			
>>>>>>>>referenceTFCId	0			
>>>>>>TFCS 7				
>>>>>>>ctfc				
>>>>>>>gainFactorInformation				
>>>>>>>>referenceTFCId				
>>>>>>TFCS 8				
>>>>>>>ctfc				
>>>>>>>gainFactorInformation				
>>>>>>>>referenceTFCId				
>>>>>>TFCS 9				
>>>>>>>ctfc				
>>>>>>>gainFactorInformation				
>>>>>>>>referenceTFCId				
>>>>>>TFCS 10				
>>>>>>>ctfc				
>>>>>>>gainFactorInformation				
>>>>>>>>βc (FDD only)				
>>>>>>>>βd				
>>>>>>>>referenceTFCId				
dl-CommonTransChInfo				
>tfcs-SignallingMode	Same as UL	Same as UL	Same as UL	Same as UL
PhyCH INFORMATION FDD				
UL-DPCH-InfoPredef				

Configuration	28.8 kbps conv. CS- data + 3.4 kbps signalling	32 kbps conv. CS-data + 3.4 kbps signalling	64kbps conv. CS-data + 3.4 kbps signalling	14.4 kbps streaming CS-data + 3.4 kbps signalling
>ul-DPCH-PowerControlInfo				
>>powerControlAlgorithm	Algorithm 1	Algorithm 1	Algorithm 1	Algorithm 1
>>>tpcStepSize	1	1	1	1
>tfci-Existence	TRUE	TRUE	TRUE	TRUE
>puncturingLimit	0.92	0.8	0.92	1
DL-CommonInformationPredef				
>dl-DPCH-InfoCommon				
>>spreadingFactor	64	64	32	128
>>tfci-Existence	TRUE	TRUE	TRUE	TRUE
>>pilotBits	8	8	8	8
>>positionFixed	Flexible	Flexible	Flexible	Flexible
PhyCH INFORMATION 3.84 Mcps TDD				
UL-DPCH-InfoPredef				
>ul-DPCH-PowerControlInfo				
>>dpch-ConstantValue	0	0	0	0
>commonTimeslotInfo				
>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>tfci-Coding	16	8	8	8
>>puncturingLimit	0.44	0.8	0.56	0.8
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
DL-CommonInformationPredef				
>dl-DPCH-InfoCommon				
>>commonTimeslotInfo				
>>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>>tfci-Coding	16	8	8	8
>>>puncturingLimit	0.44	0.64	0.56	0.8
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
PhyCH INFORMATION 1.28 Mcps TDD				
UL-DPCH-InfoPredef				
>commonTimeslotInfo				
>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>tfci-Coding	16	8	8	8
>>puncturingLimit	0.64	0.60	0.64	1
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
DL-CommonInformationPredef				
>dl-DPCH-InfoCommon				
>>commonTimeslotInfo				
>>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>>tfci-Coding	16	8	8	8
>>>puncturingLimit	0.64	0.60	0.64	0.88
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling	12.2 kbps speech(multimode) + 3.4 kbps signalling
Ref 34.108	16	17	1a
Default configuration identity	8	9	10
RB INFORMATION			
rb-Identity	RB1: 1, RB2: 2, RB3: 3, RB5: 5	RB1: 1, RB2: 2, RB3: 3, RB5: 5	RB1: 1, RB2: 2, RB3: 3, RB5: 5, RB6: 6, RB7: 7
rlc-InfoChoice	Rlc-info	Rlc-info	Rlc-info
>ul-RLC-Mode	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5-RB7: TM
>>transmissionRLC-DiscardMode	RB1: N/A RB2- RB3: NoDiscard RB5: N/A	RB1: N/A RB2- RB3: NoDiscard RB5: N/A	RB1: N/A RB2- RB3: NoDiscard RB5- RB7: N/A
>>>maxDat	RB1: N/A RB2- RB3: 15 RB5: N/A	RB1: N/A RB2- RB3: 15 RB5: N/A	RB1: N/A RB2- RB3: 15 RB5- RB7: N/A
>>transmissionWindowSize	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5- RB7: N/A
>>timerRST	RB1: N/A RB2- RB3: 300 RB5: N/A	RB1: N/A RB2- RB3: 300 RB5: N/A	RB1: N/A RB2- RB3: 300 RB5- RB7: N/A
>>max-RST	RB1: N/A RB2- RB3: 1 RB5: N/A	RB1: N/A RB2- RB3: 1 RB5: N/A	RB1: N/A RB2- RB3: 1 RB5- RB7: N/A
>>pollingInfo	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5- RB7: N/A
>>>lastTransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>lastRetransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerPollPeriodic	RB2- RB3: 300	RB2- RB3: 300	RB2- RB3: 300
>>segmentationIndication	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5- RB7: FALSE
>dl-RLC-Mode	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5- RB7: TM
>>inSequenceDelivery	RB1: N/A RB2- RB3: TRUE RB5: N/A	RB1: N/A RB2- RB3: TRUE RB5: N/A	RB1: N/A RB2- RB3: TRUE RB5- RB7: N/A
>>receivingWindowSize	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5- RB7: N/A
>>dl-RLC-StatusInfo	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5- RB7: N/A
>>>timerStatusProhibit	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100
>>>missingPDU-Indicator	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerStatusPeriodic	RB2- RB3: 300	RB2- RB3: 300	RB2- RB3: 300
>>segmentationIndication	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5- RB7: FALSE

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling	12.2 kbps speech(multimode) + 3.4 kbps signalling
rb-MappingInfo			
>UL-LogicalChannelMappings	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel
>>ul-TransportChannelType	Dch	Dch	Dch
>>>transportChannelIdentity	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3
>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A
>>rlc-SizeList	RB1- RB3: configured RB5: N/A	RB1- RB3: configured RB5: N/A	RB1- RB3: configured RB5- RB7: N/A
>>mac-LogicalChannelPriority	RB1: 1, RB2: 2, RB3: 3 RB5: 5	RB1: 1, RB2: 2, RB3: 3 RB5: 5	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: 5
>DL-logicalChannelMappingList			
>>Mapping option 1	One mapping option	One mapping option	One mapping option
>>>dl-TransportChannelType	Dch	Dch	Dch
>>>>transportChannelIdentity	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3
>>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A
TrCH INFORMATION PER TrCH			
UL-AddReconfTransChInfoList			
>Uplink transport channel type	dch	dch	dch
>transportChannelIdentity	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>transportFormatSet	DedicatedTransChTFS	DedicatedTransChTFS	DedicatedTransChTFS
>>dynamicTF-information			
>>>tf0/ tf0,1	TrCH1: (0x576, 1x576, 2x576) TrCH2: (0x144, 1x144)	TrCH1: (0x576, 1x576, 2x576, 3x576, 4x576) TrCH2: (0x144, 1x144)	TrCH1: (0x81) TrCH2: (0x 103 TrCH3: (0x 60) TrCH4: (0x144)
>>>>rlcSize	TrCH1: OctetMode TrCH2:BitMode	TrCH1: OctetMode TrCH2:BitMode	BitMode
>>>>>sizeType	TrCH1: type 2, part1= 9, part2= 2 (576) TrCH2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 9, part2= 2 (576) TrCH2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 1: 81 TrCH2: type 1: 103 TrCH3: type 1: 60 TrCH4: 2: type 2, part1= 2, part2= 0 (144)
>>>>numberOfTbSizeList	TrCH1: Zero, one, 2 TrCH2: Zero, one	TrCH1: Zero, one, 2, 3, 4 TrCH2: Zero, one	TrCH1-4: Zero
>>>>logicalChannelList	All	All	All
>>>tf 1			TrCH1: (1x39) TrCH2: (1x53) TrCH3: (1x60) TrCH4: (1x144)

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling	12.2 kbps speech(multimode) + 3.4 kbps signalling
>>>>numberOfTransportBlocks			TrCH1-3: One
>>>>rlc-Size			TrCH1-3: BitMode
>>>>>sizeType			TrCH1: 1: 39 TrCH2: 1: 53 TrCH3: 1: 60
>>>>numberOfTbSizeList			TrCH1-3: One
>>>>logicalChannelList			TrCH1-3: all
>>>tf 2			TrCH1: (1x42) TrCH2: (1x63) TrCH3- TrCH4: N/A
>>>>numberOfTransportBlocks			TrCH1-2: One
>>>>rlc-Size			TrCH1: BitMode
>>>>>sizeType			TrCH1: type 1: 42 TrCH2: type 1: 63
>>>>numberOfTbSizeList			TrCH1-2: One
>>>>logicalChannelList			TrCH1: all
>>>tf 3			TrCH1: (1x55) TrCH2: (1x84) TrCH3- TrCH4: N/A
>>>>numberOfTransportBlocks			TrCH1-2: Zero
>>>>rlc-Size			TrCH1: BitMode
>>>>>sizeType			TrCH1: type 1: 55 TrCH2: type 1: 84
>>>>numberOfTbSizeList			TrCH1-2: One
>>>>logicalChannelList			TrCH1: all
>>>tf 4			TrCH1: (1x75) TrCH2: (1x103) TrCH3- TrCH4: N/A
>>>>numberOfTransportBlocks			TrCH1-2: One
>>>>rlc-Size			TrCH1: BitMode
>>>>>sizeType			TrCH1: type 1: 75 TrCH2: type 1: 103
>>>>numberOfTbSizeList			TrCH1-2: One
>>>>logicalChannelList			TrCH1: all
>>>tf 5			TrCH1: (1x81) TrCH2- TrCH4: N/A
>>>>numberOfTransportBlocks			TrCH1: One
>>>>rlc-Size			TrCH1: BitMode
>>>>>sizeType			TrCH1: type 1: 81
>>>>numberOfTbSizeList			TrCH1: One
>>>>logicalChannelList			TrCH1: all
>>semiStaticTF-Information			
>>>tti	TrCH1: 40 TrCH2: 40	TrCH1: 40 TrCH2: 40	TrCH1- TrCH3: 20 TrCH4: 40
>>>channelCodingType	TrCH1: Turbo TrCH2: Convolutional	TrCH1: Turbo TrCH2: Convolutional	Convolutional
>>>>codingRate	TrCH1: N/A TrCH2: Third	TrCH1: N/A TrCH2: Third	TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third
>>>rateMatchingAttribute	TrCH1: 155 TrCH2: 160	TrCH1: 145 TrCH2: 160	TrCH1: 200 TrCH2: 190 TrCH3: 235 TrCH4: 160

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling	12.2 kbps speech(multimode) + 3.4 kbps signalling
>>>crc-Size	TrCH1: 16 TrCH2: 16	TrCH1: 16 TrCH2: 16	TrCH1: 12 TrCH2- TrCH3: 0 TrCH4: 16
DL-AddReconfTransChInfoList			
>Downlink transport channel type	dch	dch	dch
>dl-TransportChannelIdentity (should be as for UL)	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>tfs-SignallingMode	SameAsUL	SameAsUL	Independent <Only tf0 on TrCH1 is different and shown below>
>>transportFormatSet			DedicatedTransChTFS
>>>dynamicTF-information			
>>>>tf0/ tf0,1			TrCH1: (1x0)
>>>>rlcSize			bitMode
>>>>>sizeType			TrCH1: type 1: 0
>>>>numberOfTbSizeList			TrCH1: One
>>>>logicalChannelList			All
>>ULTrCH-Id	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>dch-QualityTarget			
>>bler-QualityValue	TrCH1: $1x10^{-2}$ TrCH2: Absent	TrCH1: $1x10^{-2}$ TrCH2: Absent	TrCH1: $7x10^{-3}$ TrCH2- TrCH4: Absent
TrCH INFORMATION, COMMON			
ul-CommonTransChInfo			
>tfcs-ID (TDD only)	1	1	1
>sharedChannelIndicator (TDD only)	FALSE	FALSE	FALSE
>tfc-Subset	Absent, not required	Absent, not required	Absent, not required
>ul-TFCS	Normal TFCI signalling	Normal TFCI signalling	Normal TFCI signalling
>>explicitTFCS-ConfigurationMode	Complete	Complete	Complete
>>>ctfcSize	Ctfc4Bit	Ctfc4Bit	Ctfc8Bit
>>>>TFCS representation	Addition	Addition	Addition
>>>>>TFCS list			
>>>>>>TFCS 1	(TF0, TF0)	(TF0, TF0)	(TF0, TF0, TF0, TF0)
>>>>>>>ctfc	0	0	0
>>>>>>>gainFactorInformation	Computed	Computed	Computed
>>>>>>>>referenceTFCId	0	0	0
>>>>>>TFCS 2	(TF1, TF0)	(TF1, TF0)	(TF1, TF0, TF0, TF0)
>>>>>>>ctfc	1	1	1
>>>>>>>gainFactorInformation	Computed	Computed	Computed
>>>>>>>>βc (FDD only)	N/A	N/A	N/A
>>>>>>>>βd	N/A	N/A	N/A
>>>>>>>>referenceTFCId	0	0	0
>>>>>>TFCS 3	(TF2, TF0)	(TF2, TF0)	(TF2, TF1, TF0, TF0)
>>>>>>>ctfc	2	2	8

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling	12.2 kbps speech(multimode) + 3.4 kbps signalling
>>>>>>>gainFactorInformation	Computed	Computed	Computed
>>>>>>>>referenceTFCId	0	0	0
>>>>>>TFCS 4	(TF0, TF1)	(TF3, TF0)	(TF3, TF2, TF0, TF0)
>>>>>>>ctfc	3	3	15
>>>>>>>gainFactorInformation	Computed	Computed	Computed
>>>>>>>>βc (FDD only)	N/A	N/A	N/A
>>>>>>>>βd	N/A	N/A	N/A
>>>>>>>>referenceTFCId	0	0	0
>>>>>>TFCS 5	(TF1, TF1)	(TF4, TF0)	(TF4, TF3, TF0, TF0)
>>>>>>>ctfc	4	4	22
>>>>>>>gainFactorInformation	Computed	Computed	Computed
>>>>>>>>referenceTFCId	0	0	0
>>>>>>TFCS 6	(TF2, TF1)	(TF0, TF1)	(TF5, TF4, TF1, TF0)
>>>>>>>ctfc	5	5	59
>>>>>>>gainFactorInformation	Signalled	Computed	Computed
>>>>>>>>βc (FDD only)	8	N/A	N/A
>>>>>>>>βd	15	N/A	N/A
>>>>>>>>referenceTFCId	0	0	0
>>>>>>TFCS 7		(TF1, TF1)	(TF0,TF0,TF0,TF1)
>>>>>>>ctfc		6	60
>>>>>>>gainFactorInformation		Computed	Computed
>>>>>>>>referenceTFCId		0	0
>>>>>>TFCS 8		(TF2, TF1)	(TF1,TF0,TF0,TF1)
>>>>>>>ctfc		7	61
>>>>>>>gainFactorInformation		Computed	Computed
>>>>>>>>referenceTFCId		0	0
>>>>>>TFCS 9		(TF3, TF1)	(TF2,TF1,TF0,TF1)
>>>>>>>ctfc		8	68
>>>>>>>gainFactorInformation		Computed	Computed
>>>>>>>>referenceTFCId		0	0
>>>>>>TFCS 10		(TF4, TF1)	(TF3,TF2,TF0,TF1)
>>>>>>>ctfc		9	75
>>>>>>>gainFactorInformation		Signalled	Computed
>>>>>>>>βc (FDD only)		8	N/A
>>>>>>>>βd		15	N/A
>>>>>>>>referenceTFCId		0	0
>>>>>>TFCS 11			(TF4,TF3,TF0,TF1)
>>>>>>>ctfc			82
>>>>>>>gainFactorInformation			Computed
>>>>>>>>referenceTFCId			0
>>>>>>TFCS 12			(TF5,TF4,TF1,TF1)
>>>>>>>ctfc			119
>>>>>>>gainFactorInformation			Signalled
>>>>>>>>βc (FDD only)			11
>>>>>>>>βd			15
>>>>>>>>referenceTFCId			0

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling	12.2 kbps speech(multimode) + 3.4 kbps signalling
dl-CommonTransChInfo			
>tfcs-SignallingMode	Same as UL	Same as UL	Same as UL
PhyCH INFORMATION FDD			
UL-DPCH-InfoPredef			
>ul-DPCH-PowerControlInfo			
>>powerControlAlgorithm	Algorithm 1	Algorithm 1	Algorithm 1
>>>tpcStepSize	1	1	1
>tfci-Existence	TRUE	TRUE	TRUE
>puncturingLimit	1	1	0.88
DL-CommonInformationPredef			
>dl-DPCH-InfoCommon			
>>spreadingFactor	64	32	128
>>tfci-Existence	TRUE	TRUE	FALSE
>>pilotBits	8	8	4
>>positionFixed	Flexible	Flexible	Fixed
PhyCH INFORMATION 3.84 Mcps TDD			
UL-DPCH-InfoPredef			
>ul-DPCH-PowerControlInfo			
>>dpch-ConstantValue	0	0	0
>commonTimeslotInfo			
>>secondInterleavingMode	frameRelated	frameRelated	frameRelated
>>tfci-Coding	16	16	16
>>puncturingLimit	0.44	0.48	0.88
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
DL-CommonInformationPredef			
>dl-DPCH-InfoCommon			
>>commonTimeslotInfo			
>>>secondInterleavingMode	frameRelated	frameRelated	frameRelated
>>>tfci-Coding	16	16	16
>>>puncturingLimit	0.44	0.48	0.92
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
PhyCH INFORMATION 1.28 Mcps TDD			
UL-DPCH-InfoPredef			
>commonTimeslotInfo			
>>secondInterleavingMode	frameRelated	frameRelated	
>>tfci-Coding	16	16	
>>puncturingLimit	0.64	0.72	
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	
DL-CommonInformationPredef			
>dl-DPCH-InfoCommon			
>>commonTimeslotInfo			
>>>secondInterleavingMode	frameRelated	frameRelated	frameRelated

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling	12.2 kbps speech(multimode) + 3.4 kbps signalling
>>>tfci-Coding	16	16	16
>>>puncturingLimit	0.64	0.72	0.92
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1

Configuration	10.2/6.7/5.9/4.75 kbps speech + 3.4 kbps signalling	7.4/6.7/5.9/4.75 kbps speech + 3.4 kbps signalling
Ref 34.108	N/A	N/A
Default configuration identity	11	12
RB INFORMATION		
rb-Identity	RB1: 1, RB2: 2, RB3: 3, RB5: 5, RB6: 6, RB7: 7, RB8: 8	RB1: 1, RB2: 2, RB3: 3, RB5: 5, RB6: 6, RB7: 7
rlc-InfoChoice	Rlc-info	Rlc-info
>ul-RLC-Mode	RB1: UM RB2- RB3: AM RB5-RB7: TM	RB1: UM RB2- RB3: AM RB5-RB6: TM
>>transmissionRLC-DiscardMode	RB1: N/A RB2- RB3: NoDiscard RB5- RB7: N/A	RB1: N/A RB2- RB3: NoDiscard RB5- RB6: N/A
>>>maxDat	RB1: N/A RB2- RB3: 15 RB5- RB7: N/A	RB1: N/A RB2- RB3: 15 RB5- RB6: N/A
>>transmissionWindowSize	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5- RB7: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5- RB6: N/A
>>timerRST	RB1: N/A RB2- RB3: 300 RB5- RB7: N/A	RB1: N/A RB2- RB3: 300 RB5- RB6: N/A
>>max-RST	RB1: N/A RB2- RB3: 1 RB5- RB7: N/A	RB1: N/A RB2- RB3: 1 RB5- RB6: N/A
>>pollingInfo	RB1: N/A RB2- RB3: as below RB5- RB7: N/A	RB1: N/A RB2- RB3: as below RB5- RB6: N/A
>>>lastTransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>lastRetransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerPollPeriodic	RB2- RB3: 300	RB2- RB3: 300
>>segmentationIndication	RB1- RB3: N/A RB5- RB7: FALSE	RB1- RB3: N/A RB5- RB6: FALSE
>dl-RLC-Mode	RB1: UM RB2- RB3: AM RB5- RB7: TM RB8: TM	RB1: UM RB2- RB3: AM RB5- RB6: TM RB7: TM
>>inSequenceDelivery	RB1: N/A RB2- RB3: TRUE RB5- RB8: N/A	RB1: N/A RB2- RB3: TRUE RB5- RB7: N/A
>>receivingWindowSize	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5- RB8: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5- RB7: N/A
>>dl-RLC-StatusInfo	RB1: N/A RB2- RB3: as below RB5- RB8: N/A	RB1: N/A RB2- RB3: as below RB5- RB7: N/A
>>>timerStatusProhibit	RB2- RB3: 100	RB2- RB3: 100
>>>missingPDU-Indicator	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerStatusPeriodic	RB2- RB3: 300	RB2- RB3: 300

>>segmentationIndication	RB1- RB3: N/A RB5- RB8: FALSE	RB1- RB3: N/A RB5- RB7: FALSE
rb-MappingInfo		
>UL-LogicalChannelMappings	OneLogicalChannel	OneLogicalChannel
>>ul-TransportChannelType	Dch	Dch
>>>transportChannelIdentity	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3,	RB1- RB3: 3 RB5: 1, RB6: 2
>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB6: N/A
>>rlc-SizeList	RB1- RB3: configured RB5- RB7: N/A	RB1- RB3: configured RB5- RB6: N/A
>>mac-LogicalChannelPriority	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: 5	RB1: 1, RB2: 2, RB3: 3 RB5- RB6: 5
>DL-logicalChannelMappingList		
>>Mapping option 1	One mapping option	One mapping option
>>>dl-TransportChannelType	Dch	Dch
>>>>transportChannelIdentity	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3, RB8: 5	RB1- RB3: 3 RB5: 1, RB6: 2, RB7:4
>>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5- RB8: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A
TrCH INFORMATION PER TrCH		
UL-AddReconfTransChInfoList		
>Uplink transport channel type	dch	dch
>transportChannelIdentity	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4	TrCH1: 1, TrCH2: 2, TrCH3: 3
>transportFormatSet	DedicatedTransChTFS	DedicatedTransChTFS
>>dynamicTF-information		
>>>tf0/ tf0,1	TrCH1: (0x65) TrCH2: (0x 99) TrCH3: (0x 40, 1x40) TrCH4: (0x144, 1x144)	TrCH1: (0x61) TrCH2: (0x 87) TrCH3: (0x 144, 1x144)
>>>>rlcSize	BitMode	BitMode
>>>>>sizeType	TrCH1: type 1: 65 TrCH2: type 1: 99 TrCH3: type 1: 40 TrCH4: 2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 1: 61 TrCH2: type 1: 87 TrCH3: 2: type 2, part1= 2, part2= 0 (144)
>>>>numberOfTbSizeList	TrCH1-2: Zero TrCH3-4: Zero, one	TrCH1-2: Zero TrCH3: Zero, one
>>>>logicalChannelList	All	All
>>>tf 1	TrCH1: (1x39) TrCH2: (1x 53) TrCH3- TrCH4: N/A	TrCH1: (1x39) TrCH2: (1x53) TrCH3: N/A
>>>>numberOfTransportBlocks	TrCH1: One TrCH2: One	TrCH1: One TrCH2: One
>>>>rlc-Size	TrCH1-2: BitMode	TrCH1-2: BitMode
>>>>>sizeType	TrCH1: 1: 39 TrCH2: 1: 53	TrCH1: 1: 39 TrCH1: 1: 53
>>>>numberOfTbSizeList	TrCH1-2: One	TrCH1-2: One

>>>>logicalChannelList	TrCH1: all	TrCH1: all
>>>tf 2	TrCH1: (1x42) TrCH2: (1x63) TrCH3- TrCH4: N/A	TrCH1: (1x42) TrCH2: (1x63) TrCH3: N/A
>>>>numberOfTransportBlocks	TrCH1: One TrCh2: One	TrCH1: One TrCh2: One
>>>>rlc-Size	TrCH1: BitMode	TrCH1: BitMode
>>>>>sizeType	TrCH1: type 1: 42 TrCH2: type 1: 63	TrCH1: type 1: 42 TrCH2: type 1: 63
>>>>numberOfTbSizeList	TrCH1: One TrCH2: One	TrCH1: One TrCH2: One
>>>>logicalChannelList	TrCH1: all TrCH2: all	TrCH1: all TrCH2: all
>>>tf 3	TrCH1: (1x55) TrCH2: (1x76) TrCH3- TrCH4: N/A	TrCH1: (1x55) TrCH2: (1x76) TrCH3: N/A
>>>>numberOfTransportBlocks	TrCH1: One TrCh2: One	TrCH1: One TrCh2: One
>>>>rlc-Size	TrCH1: BitMode	TrCH1: BitMode
>>>>>sizeType	TrCH1: type 1: 55 TrCH2: type 1: 76	TrCH1: type 1: 55 TrCH2: type 1: 76
>>>>numberOfTbSizeList	TrCH1: One TrCH2: One	TrCH1: One TrCH2: One
>>>>logicalChannelList	TrCH1: all TrCH2: all	TrCH1: all TrCH2: all
>>>tf 4	TrCH1: (1x58) TrCH2: (1x99) TrCH3- TrCH4: N/A	TrCH1: (1x58) TrCH2: (1x87) TrCH3: N/A
>>>>numberOfTransportBlocks	TrCH1: One TrCh2: One	TrCH1: One TrCh2: One
>>>>rlc-Size	TrCH1: BitMode	TrCH1: BitMode
>>>>>sizeType	TrCH1: type 1: 58 TrCH2: type 1: 99	TrCH1: type 1: 58 TrCH2: type 1: 87
>>>>numberOfTbSizeList	TrCH1: One TrCH2: One	TrCH1: One TrCH2: One
>>>>logicalChannelList	TrCH1: all TrCH2: all	TrCH1: all TrCH2: all
>>>tf 5	TrCH1: (1x65) TrCH2- TrCH4: N/A	TrCH1: (1x61) TrCH2- TrCH4: N/A
>>>>numberOfTransportBlocks	TrCH1: One	TrCH1: One
>>>>rlc-Size	TrCH1: BitMode	TrCH1: BitMode
>>>>>sizeType	TrCH1: type 1: 42	TrCH1: type 1: 42
>>>>numberOfTbSizeList	TrCH1: One	TrCH1: One
>>>>logicalChannelList	TrCH1: all	TrCH1: all
>>semistaticTF-Information		
>>>tti	TrCH1- TrCH3: 20 TrCH4: 40	TrCH1- TrCH2: 20 TrCH3: 40
>>>channelCodingType	Convolutional	Convolutional
>>>>codingRate	TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third	TrCH1- TrCH2: Third TrCH3: Third
>>>rateMatchingAttribute	TrCH1: 200 TrCH2: 190 TrCH3: 235 TrCH4: 160	TrCH1: 200 TrCH2: 190 TrCH3: 160
>>>crc-Size	TrCH1: 12 TrCH2- TrCH3: 0 TrCH4: 16	TrCH1: 12 TrCH2: 0 TrCH3: 16
DL-AddReconfTransChInfoList		
>Downlink transport channel type	dch	dch
>dl-TransportChannelIdentity		

>tfs-SignallingMode	Independent <Only tf0 on TrCH1 and tf0/tf1 on TrCH5 are different and shown below>	Independent <Only tf0 on TrCH1 and tf0/tf1 on TrCH4 are different and shown below>
>>transportFormatSet		
>>>dynamicTF-information		
>>>>tf0/ tf0,1	TrCH1: (1x0) TrCH5: (0x3, 1x3)	TrCH1: (1x0) TrCH4: (0x3, 1x3)
>>>>rlcSize	BitMode	bitMode
>>>>>sizeType	TrCH1: type 1: 0 TrCH5: type 1: 3	TrCH1: type 1: 0 TrCH4: type 1: 3
>>>>numberOfTbSizeList	TrCH1: One TrCH5: Zero, one	TrCH1: One TrCH4: Zero, one
>>>>logicalChannelList	All	All
>>>semistaticTF-Information	same as UL except for TrCH5	same as DL except for TrCH4
>>>>tti	TrCH5: 20	TrCH4: 20
>>>>channelCodingType	Convolutional	Convolutional
>>>>>codingRate	TrCH5: Third	TrCH4: Third
>>>>rateMatchingAttribute	TrCH5: 200	TrCH4: 200
>>>>crc-Size	TrCH5: 12	TrCH4: 12
>>ULTrCH-Id	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4,	TrCH1: 1, TrCH2: 2, TrCH3: 3
>dch-QualityTarget		
>>bler-QualityValue	TrCH1: $7x10^{-3}$ TrCH2- TrCH5: Absent	TrCH1: $7x10^{-3}$ TrCH2- TrCH4: Absent
TrCH INFORMATION, COMMON		
ul-CommonTransChInfo		
>tfcs-ID (TDD only)	1	1
>sharedChannelIndicator (TDD only)	FALSE	FALSE
> tfc-Subset	Absent, not required	Absent, not required
>ul-TFCS	Normal TFCI signalling	Normal TFCI signalling
>>explicitTFCS-ConfigurationMode	Complete	Complete
>>>ctfcSize	Ctfc6Bit	Ctfc6Bit
>>>>TFCS representation	Addition	Addition
>>>>>TFC list		
>>>>>>TFC 1	(TF0, TF0, TF0, TF0)	(TF0, TF0, TF0)
>>>>>>>ctfc	0	0
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 2	(TF1, TF0, TF0, TF0)	(TF1, TF0, TF0)
>>>>>>>ctfc	1	1
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>βc (FDD only)	N/A	N/A
>>>>>>>>βd	N/A	N/A
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 3	(TF2, TF1, TF0, TF0)	(TF2, TF1, TF0)
>>>>>>>ctfc	8	8
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 4	(TF3, TF2, TF0, TF0)	(TF3, TF2, TF0)
>>>>>>>ctfc	15	15

>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>βc (FDD only)		
>>>>>>>>βd		
>>>>>>>referenceTFCId	0	0
>>>>>>TFC 5	(TF4, TF3, TF0, TF0)	(TF4, TF3, TF0)
>>>>>>>ctfc	22	22
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 6	(TF5, TF4, TF1, TF0)	(TF5, TF4, TF0)
>>>>>>>ctfc	59	29
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>βc (FDD only)		
>>>>>>>>βd		
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 7	(TF0, TF0, TF0, TF1)	(TF0, TF0, TF1)
>>>>>>>ctfc	60	30
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 8	(TF1, TF0, TF0, TF1)	(TF1, TF0, TF1)
>>>>>>>ctfc	61	31
>>>>>>>gainFactorInformation	computed	computed
>>>>>>>>βc (FDD only)		
>>>>>>>>βd		
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 9	(TF2, TF1, TF0, TF1)	(TF2, TF1, TF1)
>>>>>>>ctfc	68	38
>>>>>>>gainFactorInformation	computed	computed
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 10	(TF3, TF2, TF0, TF1)	(TF3, TF2, TF1)
>>>>>>>ctfc	75	45
>>>>>>>gainFactorInformation	computed	computed
>>>>>>>>βc (FDD only)		
>>>>>>>>βd		
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 11	(TF4, TF3, TF0, TF1)	(TF4, TF3, TF1)
>>>>>>>ctfc	82	52
>>>>>>>gainFactorInformation	computed	computed
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 12	(TF5, TF4, TF1, TF1)	(TF5, TF4, TF1)
>>>>>>>ctfc	97	59
>>>>>>>gainFactorInformation	signalled	signalled
>>>>>>>>βc (FDD only)	11	11
>>>>>>>>βd	15	15
>>>>>>>>referenceTFCId	0	0
> TFC subset list		
>>TFC subset 1	(speech rate 10.2)	(speech rate 7.4)

>>> Allowed transport format combination list	(TFC1, TFC2, TFC7, TFC8, TFC6, TFC12)	(TFC1, TFC2, TFC7, TFC8, TFC6, TFC12)
>>TFC subset 2	(speech rate 6.7)	(speech rate 6.7)
>>> Allowed transport format combination list	(TFC1, TFC2, TFC7, TFC8, TFC5, TFC11)	(TFC1, TFC2, TFC7, TFC8, TFC5, TFC11)
>>TFC subset 3	(speech rate 5.9)	(speech rate 5.9)
>>> Allowed transport format combination list	(TFC1, TFC2, TFC7, TFC8, TFC4, TFC10)	(TFC1, TFC2, TFC7, TFC8, TFC4, TFC10)
>>TFC subset 4	(speech rate 4.75)	(speech rate 4.75)
>>> Allowed transport format combination list	(TFC1, TFC2, TFC7, TFC8, TFC3, TFC9)	(TFC1, TFC2, TFC7, TFC8, TFC3, TFC9)
dl-CommonTransChInfo		
>tfcs-SignallingMode	Independent	Independent
ul-CommonTransChInfo		
>tfcs-ID (TDD only)	1	1
>sharedChannelIndicator (TDD only)	FALSE	FALSE
> tfc-Subset	Absent, not required	Absent, not required
>dl-TFCS	Normal TFCI signalling	Normal TFCI signalling
>>explicitTFCS-ConfigurationMode	Complete	Complete
>>>ctfcSize	Ctfc6Bit	Ctfc6Bit
>>>>TFCS representation	Addition	Addition
>>>>>TFCS list		
>>>>>>TFC 1	(TF0, TF0, TF0, TF0, TF0)	(TF0, TF0, TF0, TF0)
>>>>>>>ctfc	0	0
>>>>>>TFC 2	(TF1, TF0, TF0, TF0, TF0)	(TF1, TF0, TF0, TF0)
>>>>>>>ctfc	1	1
>>>>>>TFC 3	(TF2, TF1, TF0, TF0, TF0)	(TF2, TF1, TF0, TF0)
>>>>>>>ctfc	8	8
>>>>>>TFC 4	(TF3, TF2, TF0, TF0, TF0)	(TF3, TF2, TF0, TF0)
>>>>>>>ctfc	15	15
>>>>>>TFC 5	(TF4, TF3, TF0, TF0, TF0)	(TF4, TF3, TF0, TF0)
>>>>>>>ctfc	22	22
>>>>>>TFC 6	(TF5, TF4, TF1, TF0, TF0)	(TF5, TF4, TF0, TF0)
>>>>>>>ctfc	59	29
>>>>>>TFC 7	(TF0, TF0, TF0, TF1, TF0)	(TF0, TF0, TF1, TF0)
>>>>>>>ctfc	60	30
>>>>>>TFC 8	(TF1, TF0, TF0, TF1, TF0)	(TF1, TF0, TF1, TF0)
>>>>>>>ctfc	61	31
>>>>>>TFC 9	(TF2, TF1, TF0, TF1, TF0)	(TF2, TF1, TF1, TF0)
>>>>>>>ctfc	68	37
>>>>>>TFC 10	(TF3, TF2, TF0, TF1, TF0)	(TF3, TF2, TF1, TF0)
>>>>>>>ctfc	75	55
>>>>>>TFC 11	(TF4, TF3, TF0, TF1, TF0)	(TF4, TF3, TF1, TF0)
>>>>>>>ctfc	82	52
>>>>>>TFC 12	(TF5, TF4, TF1, TF1, TF0)	(TF5, TF4, TF1, TF0)
>>>>>>>ctfc	119	59

>>>>>>TFC 13	(TF0, TF0, TF0, TF0, TF1)	(TF0, TF0, TF0, TF1)
>>>>>>>ctfc	120	60
>>>>>>TFC 14	(TF1, TF0, TF0, TF0, TF1)	(TF1, TF0, TF0, TF1)
>>>>>>>ctfc	121	61
>>>>>>TFC 15	(TF2, TF1, TF0, TF0, TF1)	(TF2, TF1, TF0, TF1)
>>>>>>>ctfc	128	68
>>>>>>TFC 16	(TF3, TF2, TF0, TF0, TF1)	(TF3, TF2, TF0, TF1)
>>>>>>>ctfc	135	75
>>>>>>TFC 17	(TF4, TF3, TF0, TF0, TF1)	(TF4, TF3, TF0, TF1)
>>>>>>>ctfc	152	82
>>>>>>TFC 18	(TF5, TF4, TF1, TF0, TF1)	(TF5, TF4, TF0, TF1)
>>>>>>>ctfc	189	89
>>>>>>TFC 19	(TF0, TF0, TF0, TF1, TF1)	(TF0, TF0, TF1, TF1)
>>>>>>>ctfc	180	90
>>>>>>TFC 20	(TF1, TF0, TF0, TF1, TF1)	(TF1, TF0, TF1, TF1)
>>>>>>>ctfc	181	91
>>>>>>TFC 21	(TF2, TF1, TF0, TF1, TF1)	(TF2, TF1, TF1, TF1)
>>>>>>>ctfc	188	98
>>>>>>TFC 22	(TF3, TF2, TF0, TF1, TF1)	(TF3, TF2, TF1, TF1)
>>>>>>>ctfc	195	105
>>>>>>TFC 23	(TF4, TF3, TF0, TF1, TF1)	(TF4, TF3, TF1, TF1)
>>>>>>>ctfc	239	112
>>>>>>TFC 24	(TF5, TF4, TF1, TF1, TF1)	(TF5, TF4, TF1, TF1)
>>>>>>>ctfc	218	119
PhyCH INFORMATION FDD		
UL-DPCH-InfoPredef		
>ul-DPCH-PowerControlInfo		
>>powerControlAlgorithm	Algorithm 1	Algorithm 1
>>>tpcStepSize	1	1
>tfci-Existence	TRUE	TRUE
>puncturingLimit	0.88	0.88
DL-CommonInformationPredef		
>dl-DPCH-InfoCommon		
>>spreadingFactor	128	128
>>tfci-Existence	FALSE	FALSE
>>pilotBits	4	4
>>positionFixed	Fixed	Fixed
PhyCH INFORMATION 3.84 Mcps TDD		
UL-DPCH-InfoPredef		
>ul-DPCH-PowerControlInfo		
>>dpch-ConstantValue	0	0
>commonTimeslotInfo		
>>secondInterleavingMode	frameRelated	frameRelated
>>tfci-Coding	16	16
>>puncturingLimit	0.60	0.60
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1

DL-CommonInformationPredef		
>dl-DPCH-InfoCommon		
>>commonTimeslotInfo		
>>>secondInterleavingMode	frameRelated	frameRelated
>>>tfci-Coding	16	16
>>>puncturingLimit	0.60	0.60
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1
PhyCH INFORMATION 1.28 Mcps TDD		
UL-DPCH-InfoPredef		
>commonTimeslotInfo		
>>secondInterleavingMode	frame Related	frame Related
>>tfci-Coding	16	16
>>puncturingLimit	0.64	0.64
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1
DL-CommonInformationPredef		
>dl-DPCH-InfoCommon		
>>commonTimeslotInfo		
>>>secondInterleavingMode	frame Related	frame Related
>>>tfci-Coding	16	16
>>>puncturingLimit	0.64	0.64
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1

3GPP TSG-RAN WG2 Meeting #33 **Tdoc ⌘R2-023132**
Sophia Antipolis, France, 12th-15th November 2002

CR-Form-v7

CHANGE REQUEST

⌘ **25.331** **CR** **1767** ⌘ **rev** **-** ⌘ Current version: **3.12.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ [ ] ME [X] Radio Access Network [X] Core Network [ ]

Title:	⌘	Corrections to Activation time
Source:	⌘	Ericsson
Work item code:	⌘	TEI
Date:	⌘	13/11/2002
Category:	⌘	**F**
Release:	⌘	R99

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:
2 *(GSM Phase 2)*
R96 *(Release 1996)*
R97 *(Release 1997)*
R98 *(Release 1998)*
R99 *(Release 1999)*
Rel-4 *(Release 4)*
Rel-5 *(Release 5)*
Rel-6 *(Release 6)*

Reason for change: ⌘

1. At RAN2#31 CR 1529r2 in R2-022226 was agreed. This CR included a note in section 8.6.3.1 on activation time. This note does not reflect the fact that activation time can be received in the RRC CONNECTION SETUP message causing the UE to transit from idle to CELL_FACH or CELL_DCH state.

It is assumed that for a UE in idle mode any activation time value except “now” should also result in UE behaviour unspecified for FDD and be allowed for TDD

2. 8.2.2.3 Line break is missing

3. 8.6.7.19.2a Last three occasions of “set the variable…” have the wrong indentation.

4. 10.3.7.13 IE group called “Cell for measurement” although it contains several cells. The similar group in 10.3.7.33 is correctly called “Cells for measurement”.

5. 14.1.2.3 It is not clear if the cell individual offset should be taken into account when including cells in the event list of event 1c.

6. 14.3.1.1 $CIO_{OtherRAT}$ in formula 2 is not explained.

Summary of change: ⌘

1. Sentence in section 8.6.3.1 modified to also forbid use of an activation time other than “now” for the state transition idle to any RRC connected mode state for FDD and allow it for TDD.

2. 8.2.2.3 Line break is added before second “1> In TDD” in the section

		3. 8.6.7.19.2a Last three occasions of “set the variable CONFIGURATION_INCOMPLETE to TRUE” is indented and changed to level 6. 4. 10.3.7.13 Last IE group name is renamed to “Cells for measurement” 5. Sentence added to explicitely state that cell individual offsets should be taken into account. 6. 14.3.1.1 $CIO_{OtherRAT}$ is added below equation 2 in the same way as below equation 4. **Impact analysis:** 1. For FDD the UE implementation is not affected since UE behaviour is unspecified. For TDD the UE should also for the idle mode to connected mode transition maintain CFN relative to Activation Time specified in RRC procedures. This could be considered an already a known requirement. UTRAN implementation is not directly affected given activation time other than “now” is utilised. 2, 4 No foreseen impact if not implemented in the UE or UTRAN 3. Potentially if misinterpreted the UE might reject valid configurations if indentation level is misunderstood. 5. Specifications is currently ambigous. If implemented in the UE and not in UTRAN or the opposite the UE will trigger the event at different levels compared to what is assumed by UTRAN. 6. Could potentially lead to misinterpreations related to what CIO in the formulas mean, meaning that CIO will not be applied in the formula.
Consequences if not approved:	⌘	It could be interpreted that since the idle to CELL_FACH or CELL_DCH state transition is not mentioned in the NOTE, that other values than “now” are allowed to use in the RRC CONNECTION SETUP message for FDD. This would however, lead to unpredicted UE behaviour. Misunderstandings of intention of the text

Clauses affected:	⌘	8.2.2.3, 8.6.3.1, 8.6.7.19.2a, 10.3.7.13, 14.1.2.3, 14.3.1.1				
		Y	**N**			
Other specs affected:	⌘		**X**	Other core specifications	⌘	
			X	Test specifications		
			X	O&M Specifications		
Other comments:	⌘					

How to create CRs using this form:
Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.
2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

8.2.2.3 Reception of RADIO BEARER SETUP or RADIO BEARER RECONFIGURATION or RADIO BEARER RELEASE or TRANSPORT CHANNEL RECONFIGURATION or PHYSICAL CHANNEL RECONFIGURATION message by the UE

The UE shall be able to receive any of the following messages:

- RADIO BEARER SETUP message; or
- RADIO BEARER RECONFIGURATION message; or
- RADIO BEARER RELEASE message; or
- TRANSPORT CHANNEL RECONFIGURATION message; or
- PHYSICAL CHANNEL RECONFIGURATION message.

In case the reconfiguration procedure is used to remove all existing RL(s) in the active set while new RL(s) are established the UE shall:

1> perform the physical layer synchronisation procedure A as specified in [29] (FDD only);

1> apply the hard handover procedure as specified in subclause 8.3.5;

1> be able to perform this procedure even if no prior UE measurements have been performed on the target cell and/or frequency.

If the UE receives:

- a RADIO BEARER SETUP message; or
- a RADIO BEARER RECONFIGURATION message; or
- a RADIO BEARER RELEASE message; or
- a TRANSPORT CHANNEL RECONFIGURATION message; or
- a PHYSICAL CHANNEL RECONFIGURATION message:

it shall:

1> set the variable ORDERED_RECONFIGURATION to TRUE;

1> if the UE will enter the CELL_DCH state from any state other than CELL_DCH state at the conclusion of this procedure:

2> perform the physical layer synchronisation procedure A as specified in [29] (FDD only).

1> act upon all received information elements as specified in subclause 8.6, unless specified in the following and perform the actions below.

The UE may first release the physical channel configuration used at reception of the reconfiguration message. The UE shall then:

1> in FDD, if the IE "PDSCH code mapping" is included but the IE "PDSCH with SHO DCH Info" is not included and if the DCH has only one link in its active set:

2> act upon the IE "PDSCH code mapping" as specified in subclause 8.6; and

2> infer that the PDSCH will be transmitted from the cell from which the downlink DPCH is transmitted.

1> enter a state according to subclause 8.6.3.3.

In case the UE receives a RADIO BEARER RECONFIGURATION message including the IE "RB information to reconfigure" that only includes the IE "RB identity", the UE shall:

1> handle the message as if IE "RB information to reconfigure" was absent.

NOTE: The RADIO BEARER RECONFIGURATION message always includes the IE "RB information to reconfigure". UTRAN has to include it even if it does not require the reconfiguration of any RB.

If after state transition the UE enters CELL_DCH state, the UE shall, after the state transition:

1> in FDD; or

1> in TDD when "Primary CCPCH Info" is included indicating a new target cell and "New C-RNTI" is not specified:

2> remove any C-RNTI from MAC;

2> clear the variable C_RNTI.

In FDD, if after state transition the UE leaves CELL_DCH state, the UE shall, after the state transition:

1> remove any DSCH-RNTI from MAC;

1> clear the variable DSCH_RNTI.

If the UE was in CELL_DCH state upon reception of the reconfiguration message and remains in CELL_DCH state, the UE shall:

1> if the IE "Uplink DPCH Info" is absent:

2> not change its current UL Physical channel configuration.

1> in TDD:

2> if "Primary CCPCH Info" is included indicating a new target cell and "New C-RNTI" is not specified:

3> remove any C-RNTI from MAC;

3> clear the variable C_RNTI.

If after state transition the UE enters CELL_FACH state, the UE shall, after the state transition:

1> if the IE "Frequency info" is included in the received reconfiguration message:

2> select a suitable UTRA cell according to [4] on that frequency.

1> if the IE "Frequency info" is not included in the received reconfiguration message:

2> select a suitable UTRA cell according to [4].

1> if the received reconfiguration message included the IE "Primary CPICH info" (for FDD) or "Primary CCPCH info" (for TDD), and the UE selects another cell than indicated by this IE or the received reconfiguration message did not include the IE "Primary CPICH info" (for FDD) or "Primary CCPCH info" (for TDD):

2> initiate a cell update procedure according to subclause 8.3.1 using the cause "Cell reselection";

2> when the cell update procedure completed successfully:

3> if the UE is in CELL_PCH or URA_PCH state:

4> initiate a cell update procedure according to subclause 8.3.1 using the cause "Uplink data transmission";

4> proceed as below.

1> start timer T305 using its initial value if timer T305 is not running and if periodical update has been configured by T305 in the IE "UE Timers and constants in connected mode" set to any other value than "infinity" in the variable TIMERS_AND_CONSTANTS;

1> select PRACH according to subclause 8.5.17;

1> select Secondary CCPCH according to subclause 8.5.19;

1> use the transport format set given in system information;

1> if the IE "UTRAN DRX cycle length coefficient" is included in the same message:

2> ignore that IE and stop using DRX.

1> if the contents of the variable C_RNTI is empty:

2> perform a cell update procedure according to subclause 8.3.1 using the cause "Cell reselection";

2> when the cell update procedure completed successfully:

3> if the UE is in CELL_PCH or URA_PCH state:

4> initiate a cell update procedure according to subclause 8.3.1 using the cause "Uplink data transmission";

4> proceed as below.

If the UE was in CELL_FACH state upon reception of the reconfiguration message and remains in CELL_FACH state, the UE shall:

1> if the IE "Frequency info" is included in the received reconfiguration message:

2> select a suitable UTRA cell according to [4] on that frequency;

2> if the received reconfiguration message included the IE "Primary CPICH info" (for FDD) or "Primary CCPCH info" (for TDD), and the UE selected another cell than indicated by this IE or the received reconfiguration message did not include the IE "Primary CPICH info" (for FDD) or "Primary CCPCH info" (for TDD):

3> initiate a cell update procedure according to subclause 8.3.1 using the cause "cell reselection";

3> when the cell update procedure completed successfully:

4> proceed as below.

The UE shall transmit a response message as specified in subclause 8.2.2.4, setting the information elements as specified below. The UE shall:

1> if the received reconfiguration message included the IE "Downlink counter synchronisation info"; or

1> if the received reconfiguration message is a RADIO BEARER RECONFIGURATION and the IE "New U-RNTI" is included:

2> re-establish RB2;

2> set the new uplink and downlink HFN component of COUNT-C of RB2 to MAX(uplink HFN component of COUNT-C of RB2, downlink HFN component of COUNT-C of RB2);

2> increment by one the downlink and uplink values of the HFN component of COUNT-C for RB2;

2> calculate the START value according to subclause 8.5.9;

2> include the calculated START values for each CN domain in the IE "START list" in the IE "Uplink counter synchronisation info".

1> if the received reconfiguration message did not include the IE "Downlink counter synchronisation info":

2> if the variable START_VALUE_TO_TRANSMIT is set:

3> include and set the IE "START" to the value of that variable.

2> if the variable START_VALUE_TO_TRANSMIT is not set and the IE "New U-RNTI" is included:

3> calculate the START value according to subclause 8.5.9;

3> include the calculated START values for each CN domain in the IE "START list" in the IE "Uplink counter synchronisation info".

2> if the received reconfiguration message caused a change in the RLC size for any RB using RLC-AM:

3> calculate the START value according to subclause 8.5.9;

3> include the calculated START values for the CN domain associated with the corresponding RB identity in the IE "START list" in the IE "Uplink counter synchronisation info".

1> if the received reconfiguration message contained the IE "Ciphering mode info" or contained the IE "Integrity protection mode info":

2> set the IE "Status" in the variable SECURITY_MODIFICATION for all the CN domains in the variable SECURITY_MODIFICATION to "Affected".

1> if the received reconfiguration message contained the IE "Ciphering mode info":

2> include and set the IE "Radio bearer uplink ciphering activation time info" to the value of the variable RB_UPLINK_CIPHERING_ACTIVATION_TIME_INFO.

1> if the received reconfiguration message did not contain the IE "Ciphering activation time for DPCH":

2> if prior to this procedure there exist no transparent mode RLC radio bearers for the CN domain indicated in the IE "CN domain identity" in the IE "RAB info":

3> if, at the conclusion of this procedure, the UE will be in CELL_DCH state; and

3> if, at the conclusion of this procedure, at least one transparent mode RLC radio bearer exists for the CN domain indicated in the IE "CN domain identity" in the IE "RAB info":

4> include the IE "COUNT-C activation time" and specify a CFN value for this IE.

NOTE: UTRAN should not include the IE "Ciphering mode info" in any reconfiguration messages unless it is also used to perform an SRNS relocation with change of ciphering algorithm.

1> set the IE "RRC transaction identifier" to the value of "RRC transaction identifier" in the entry for the received message in the table "Accepted transactions" in the variable TRANSACTIONS; and

1> clear that entry;

1> if the variable PDCP_SN_INFO is not empty:

2> include the IE "RB with PDCP information list" and set it to the value of the variable PDCP_SN_INFO.

1> in TDD, if the procedure is used to perform a handover to a cell where timing advance is enabled, and the UE can calculate the timing advance value in the new cell (i.e. in a synchronous TDD network):

2> set the IE "Uplink Timing Advance" according to subclause 8.6.6.26.

1> if the IE "Integrity protection mode info" was present in the received reconfiguration message:

2> start applying the new integrity protection configuration in the uplink for signalling radio bearer RB2 from and including the transmitted response message.

If after state transition the UE enters CELL_PCH or URA_PCH state, the UE shall, after the state transition and transmission of the response message:

1> if the IE "Frequency info" is included in the received reconfiguration message:

2> select a suitable UTRA cell according to [4] on that frequency.

1> if the IE "Frequency info" is not included in the received reconfiguration message:

2> select a suitable UTRA cell according to [4].

1> prohibit periodical status transmission in RLC;

1> remove any C-RNTI from MAC;

1> clear the variable C_RNTI;

1> start timer T305 using its initial value if timer T305 is not running and if periodical update has been configured by T305 in the IE "UE Timers and constants in connected mode" set to any other value than "infinity" in the variable TIMERS_AND_CONSTANTS;

1> select Secondary CCPCH according to subclause 8.5.19;

1> if the IE "UTRAN DRX cycle length coefficient" is included in the same message:

2> use the value in the IE "UTRAN DRX Cycle length coefficient" for calculating Paging occasion and PICH Monitoring Occasion as specified in subclause 8.6.3.2.

1> if the IE "UTRAN DRX cycle length coefficient" is not included in the same message:

2> set the variable INVALID_CONFIGURATION to TRUE.

1> if the UE enters CELL_PCH state from CELL_DCH state, and the received reconfiguration message included the IE "Primary CPICH info" (for FDD) or "Primary CCPCH info" (for TDD), and the UE selected another cell than indicated by this IE or the received reconfiguration message did not include the IE "Primary CPICH info" (for FDD) or "Primary CCPCH info" (for TDD):

2> initiate a cell update procedure according to subclause 8.3.1 using the cause "cell reselection";

2> when the cell update procedure completed successfully:

3> the procedure ends.

1> if the UE enters CELL_PCH state from CELL_FACH state, and the received reconfiguration message included the IE "Primary CPICH info" (for FDD) or "Primary CCPCH info" (for TDD), and the UE selected another cell than indicated by this IE:

2> initiate a cell update procedure according to subclause 8.3.1 using the cause "cell reselection";

2> when the cell update procedure is successfully completed:

3> the procedure ends.

1> if the UE enters URA_PCH state, and after cell selection the criteria for URA update caused by "URA reselection" according to subclause 8.3.1 is fulfilled:

2> initiate a URA update procedure according to subclause 8.3.1 using the cause "URA reselection";

2> when the URA update procedure is successfully completed:

3> the procedure ends.

8.6.3 UE information elements

8.6.3.1 Activation time

If the UE receives a message in which presence is needed for the IE "Activation time", and the value is other than the default value "Now", the UE shall:

1> if the frame boundary immediately before the frame with the CFN (Connection Frame Number) value indicated by the IE "Activation Time" is at the TTI boundary common to all the transport channels that are multiplexed onto the same CCTrCh including any transport channel which is added, reconfigured or has been removed:

2> select that frame boundary as the activation time T.

1> else:

2> select the next TTI boundary, which is common to all the transport channels that are multiplexed onto the same CCTrCh including any transport channel which is added, reconfigured or has been removed, after the

frame with the CFN (Connection Frame Number) value indicated by the IE "Activation Time", as the activation time T.

1> at the activation time T:

2> for a physical channel reconfiguration caused by the received message:

3> release the physical channel configuration, which was present before T;

3> initiate the establishment of the physical channel configuration as specified for the physical channel information elements in the received message as specified elsewhere.

2> for actions, other than a physical channel reconfiguration, caused by the received message:

3> perform the actions for the information elements in the received message as specified elsewhere.

If the UE receives a message in which presence is needed for the IE "Activation time", and the value is the default value "Now", the UE shall:

1> choose an activation time T as soon as possible after the reception of the message, respecting the performance requirements in subclause 13.5;

1> at the activation time T:

2> perform the actions for the information elements in the received message as specified elsewhere.

NOTE: In FDD, if the UE was in idle mode or CELL_FACH state upon reception of the message, regardless of the state the UE enters after reception of the message, and the value of the IE "Activation time" in the received message is different from "Now", the UE behaviour is unspecified. In TDD, if the UE was in idle mode or CELL_FACH state upon reception of the message, the value of the IE "Activation time" in the received message is relative to the CFN associated with the cell from which the message was received.

8.6.7.19.2a UE positioning OTDOA assistance data for UE-based

The UE shall:

1> if IE "UE positioning OTDOA reference cell info for UE-based" is received in System Information Block type 15.5 or in the MEASUREMENT CONTROL message or in the ASSISTANCE DATA DELIVERY:

2> update the variable UE_POSITIONING_OTDOA_DATA_UE_BASED accordingly;

2> store received cell information in the UE positioning reference cell info for UE-based in the variable UE_POSITIONING_OTDOA_DATA_UE_BASED, overwriting any existing information.

1> if IE "UE positioning OTDOA neighbour cell list for UE-based" is received in System Information Block type 15.5 or in the MEASUREMENT CONTROL message or in the ASSISTANCE DATA DELIVERY:

2> update the variable UE_POSITIONING_OTDOA_DATA_UE_BASED accordingly;

2> store received cell information in the neighbour cell info list for UE-based in the variable UE_POSITIONING_OTDOA_DATA_UE_BASED, overwriting any existing information.

1> if, according to its capabilities, UE does not support IPDLs and if IE "IPDL parameters" is received for the reference or any of the neighbour cells:

2> ignore this IE.

1> if IE "SFN offset validity" is set to FALSE:

2> ignore the IE "SFN offset".

1> if IE "UE positioning measurement" is received in the MEASUREMENT CONTROL message:

2> also perform the following consistency checks:

3> if IE "Positioning Methods" is set to "OTDOA":

4> if IE "UE positioning OTDOA reference cell info for UE-based" is not included and if UE positioning OTDOA reference cell info for UE-based in variable UE_POSITIONING_OTDOA_DATA_UE_BASED is empty:

5> set the variable CONFIGURATION_INCOMPLETE to TRUE.

3> if IE "Positioning Methods" is set to "OTDOA":

4> if IE "UE positioning OTDOA neighbour cell list for UE-based" is not included and if less than two neighbour cells are stored in UE positioning OTDOA neighbour cell info list for UE-based in variable UE_POSITIONING_OTDOA_DATA_UE_BASED:

5> set the variable CONFIGURATION_INCOMPLETE to TRUE.

4> if IE "Method Type" is set to "UE based":

5> if IE "UE positioning OTDOA reference cell info for UE-based" is included and if IE "Cell Position" for the reference cell is not included:

6~~4~~> set the variable CONFIGURATION_INCOMPLETE to TRUE.

5> if the IE "UE positioning OTDOA neighbour cell list for UE-based" is included and if cell position of less than two neighbour cells of the cells included in this IE and stored in variable UE_POSITIONING_OTDOA_DATA_UE_BASED are different and if those cell positions are not different to the one of the reference cell stored in variable UE_POSITIONING_OTDOA_DATA_UE_BASED:

6~~4~~> set the variable CONFIGURATION_INCOMPLETE to TRUE.

5> if the IE "UE positioning OTDOA neighbouring cell list for UE-based " is included and only two neighbour cells are included or stored in variable UE_POSITIONING_OTDOA_DATA_UE_BASED and if the IE "Round Trip Time" is neither included for the neighbour cells nor for the reference cell info:

6~~4~~> set the variable CONFIGURATION_INCOMPLETE to TRUE.

10.3.7.13 Inter-frequency cell info list

Contains the information for the list of measurement objects for an inter-frequency measurement.

Information Element/Group name	Need	Multi	Type and reference	Semantics description
CHOICE *Inter-frequency cell removal*	OP			
>Remove all inter-frequency cells				No data
>Remove some inter-frequency cells				
>>Removed inter-frequency cells	MP	1 .. <maxCellMeas>		
>>>Inter-frequency cell id	MP		Integer(0 .. <maxCellMeas>-1)	
>No inter-frequency cells removed				No data
New inter-frequency cells	OP	1 to <maxCellMeas>		
>Inter-frequency cell id	MD		Integer(0 .. <maxCellMeas>-1)	
>Frequency info	MD		Frequency info 10.3.6.36	Default value is the value of the previous "frequency info" in the list. NOTE: The first occurrence is then MP.
>Cell info	MP		Cell info 10.3.7.2	
Cells for measurement	CV-*BCHopt*	1 to <maxCellMeas>		
>Inter-frequency cell id	MP		Integer(0 .. <maxCellMeas>-1)	

Condition	Explanation
BCHopt	This IE is not needed when sent in SYSTEM INFORMATION. Otherwise, the IE is Optional

14.1.2.3 Reporting event 1C: A non-active primary CPICH becomes better than an active primary CPICH

When an intra-frequency measurement configuring event 1c is set up, the UE shall:

1> create a variable TRIGGERED_1C_EVENT related to that measurement, which shall initially be empty;

1> delete this variable when the measurement is released.

When event 1C is configured in the UE, the UE shall:

1> if "Measurement quantity" is "pathloss" and Equation 1 below is fulfilled for one or more primary CPICHs, or if "Measurement quantity" is "CPICH Ec/N0" or "CPICH RSCP", and Equation 2 below is fulfilled for one or more primary CPICHs, for each of these primary CPICHs:

2> if all required reporting quantities are available for that cell; and

2> if the equations have been fulfilled for a time period indicated by "Time to trigger", and if the primary CPICH that is better is not included in the active set but the other primary CPICH is any of the primary CPICHs included in the active set, and if that first primary CPICH is not included in the "cells triggered" in the variable TRIGGERED_1C_EVENT:

3> include that primary CPICH in the "cells recently triggered" in the variable TRIGGERED_1C_EVENT.

1> if the value of "Replacement activation threshold" for this event is less than or equal to the current number of cells in the active set or equal to 0 and if any primary CPICHs are stored in the "cells recently triggered" in the variable TRIGGERED_1C_EVENT:

2> if "Reporting interval" for this event is not equal to 0:

3> if the IE "Periodical reporting running" in the variable TRIGGERED_1C_EVENT is set to FALSE:

4> start a timer for with the value of "Reporting interval" for this event and set the IE "Periodical reporting running" in the variable TRIGGERED_1C_EVENT to TRUE.

3> set "sent reports" for that primary CPICH in the variable TRIGGERED_1C_EVENT to 1.

2> send a measurement report with IEs set as below:

3> set in "intra-frequency measurement event results": "Intrafrequency event identity" to "1c"; and

3> include in "cell measurement event results" all entries of the "cells recently triggered" in the variable TRIGGERED_1C_EVENT not in the active set as well as the "primary CPICH info" of all the primary CPICHs in the active set for which the measured value is worse (i.e. greater for pathloss and less for the other measurement quantities) than the one of the entry in "cell recently triggered" that has the best measured value taking into account their cell individual offset. The "primary CPICH info" for those cells shall be ordered according to their measured value taking into account their cell individual offset, beginning with the best cell to the worst one;

3> set the IE "measured results" and the IE "additional measured results" according to subclause 8.4.2, not taking into account the cell individual offset for each cell.

2> move all entries from "cells recently triggered" to "cells triggered" in the variable TRIGGERED_1C_EVENT.

1> if the timer for the periodical reporting has expired:

2> if any primary CPICH is included in the "cells triggered" in the variable TRIGGERED_1C_EVENT, and not included in the current active set:

3> if "Reporting interval" for this event is not equal to 0, and if "Amount of reporting" is greater than "sent reports" stored for that primary CPICH, in "cells triggered" in the variable TRIGGERED_1C_EVENT:

4> increment the stored counter "sent reports" for all CPICH in "cell triggered" in variable TRIGGERED_1C_EVENT;

4> start a timer with the value of "Reporting interval" for this event;

4> send a measurement report with IEs set as below:

5> set in "intra-frequency measurement event results": "Intrafrequency event identity" to "1c"; and

5> include in "cell measurement event results" all entries of the variable TRIGGERED_1C_EVENT with value of IE "sent report" smaller than value of "Amount of reporting" and that are not part of the active set as well as the "primary CPICH info" of all the primary CPICHs in the active set for which the measured value is worse (i.e. greater for pathloss and less for the other measurement quantities) than the one of the entry in "cell recently triggered" that has the best measured value, ordering the "primary CPICH info" according to their measured value beginning with the best cell to the worst one, taking into account the cell individual offset for each cell;

5> set the IE "measured results" and the IE "additional measured results" according to subclause 8.4.2, not taking into account the cell individual offset for each cell.

4> if "sent reports" in variable TRIGGERED_1C_EVENT is greater than "Amount of reporting" for all entries:

5> set the IE "Periodical Reporting running" in the variable TRIGGERED_1C_EVENT to FALSE and disable the timer for the periodical reporting.

1> if "Measurement quantity" is "pathloss" and Equation 3 below is fulfilled for a primary CPICH, or if "Measurement quantity" is "CPICH Ec/N0" or "CPICH RSCP", and Equation 4 below is fulfilled for a primary CPICH or;

1> if a primary CPICH is added to the active set:

2> if that primary CPICH is included in the "cells triggered" or "cells recently triggered" in the variable TRIGGERED_1C_EVENT:

3> remove the entry of that primary CPICH from "cells triggered" or "cells recently triggered" in the variable TRIGGERED_1C_EVENT.

3> if no entry in the variable TRIGGERED_1C_EVENT has a value of "sent reports" smaller than "Amount of reporting":

4> stop the reporting interval timer;

4> set the IE "Periodical reporting running" in the variable TRIGGERED_1C_EVENT to FALSE.

Equation 1 (Triggering condition for pathloss)

$$10 \cdot Log M_{New} + CIO_{New} \leq 10 \cdot Log M_{InAS} + CIO_{InAS} - H_{1c}/2,$$

Equation 2 (Triggering condition for all the other measurement quantities)

$$10 \cdot Log M_{New} + CIO_{New} \geq 10 \cdot Log M_{InAS} + CIO_{InAS} + H_{1c}/2,$$

Equation 3 (Leaving triggering condition for pathloss)

$$10 \cdot Log M_{New} + CIO_{New} > 10 \cdot Log M_{InAS} + CIO_{InAS} + H_{1c}/2,$$

Equation 4 (Leaving triggering condition for all the other measurement quantities)

$$10 \cdot Log M_{New} + CIO_{New} < 10 \cdot Log M_{InAS} + CIO_{InAS} - H_{1c}/2,$$

The variables in the formula are defined as follows:

$\boldsymbol{M_{New}}$ is the measurement result of the cell not included in the active set.

$\boldsymbol{CIO_{New}}$ is the individual cell offset for the cell becoming better than the cell in the active set if an individual cell offset is stored for that cell. Otherwise it is equal to 0.

For pathloss:

$\boldsymbol{M_{InAS}}$ is the measurement result of the cell in the active set with the highest measurement result.

For other measurement quantities:

$\boldsymbol{M_{InAS}}$ is the measurement result of the cell in the active set with the lowest measurement result.

$\boldsymbol{CIO_{InAS}}$ is the individual cell offset for the cell in the active set that is becoming worse than the new cell.

$\boldsymbol{H_{1c}}$ is the hysteresis parameter for the event 1c.

If the measurement results are pathloss or CPICH-Ec/No then $\boldsymbol{M_{New}}$ and $\boldsymbol{M_{inAS}}$ are expressed as ratios.

If the measurement result is CPICH-RSCP then $\boldsymbol{M_{New}}$ and $\boldsymbol{M_{inAS}}$ are expressed in mW.

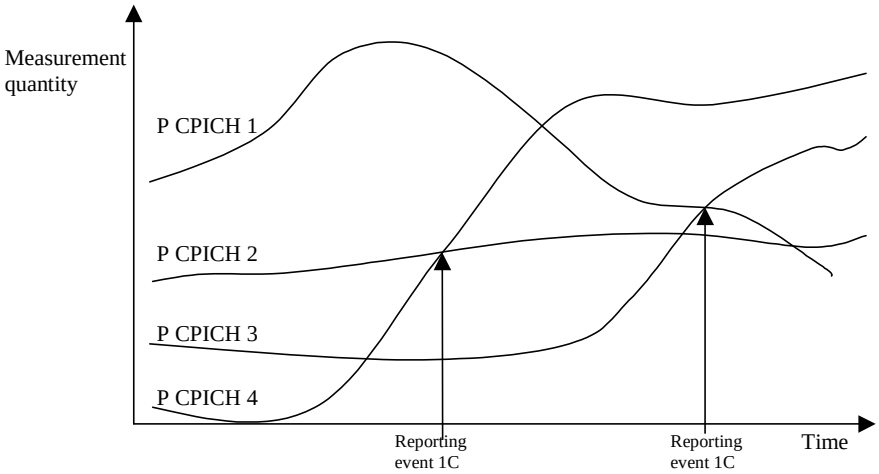

Figure 14.1.2.3-1 [Informative]: A primary CPICH that is not included in the active set becomes better than a primary CPICH that is in the active set

In this figure, the parameters hysteresis and time to trigger, as well as the cell individual offsets for all cells are equal to 0. In this example the cells belonging to primary CPICH 1 and 2 are in the active set, but the cells transmitting primary CPICH 3 and CPICH 4 are not (yet) in the active set.

The first measurement report is sent when primary CPICH 4 becomes better than primary CPICH 2. The "cell measurement event result" of the measurement report contains the information of primary CPICH 4 and CPICH 2.

Assuming that the active set has been updated after the first measurement report (active set is now primary CPICH 1 and primary CPICH 4), the second report is sent when primary CPICH 3 becomes better than primary CPICH 1. The "cell measurement event result" of the second measurement report contains the information of primary CPICH 3 and primary CPICH 1.

14.3.1.1 Event 3a: The estimated quality of the currently used UTRAN frequency is below a certain threshold **and** the estimated quality of the other system is above a certain threshold.

When an inter-RAT measurement configuring event 3a is set up, the UE shall:

1> create a variable TRIGGERED_3A_EVENT related to that measurement, which shall initially be empty;

1> delete this variable when the measurement is released.

When event 3a is configured in the UE within a measurement, the UE shall:

1> if the other RAT is GSM, and if IE "BSIC verification required" is set to "required":

2> if equations 1 and 2 below have both been fulfilled for a time period indicated by "Time to trigger" from the same instant, respectively for the used UTRAN frequency and for one or several GSM cells that match any of the BCCH ARFCN and BSIC combinations considered in that inter-RAT measurement:

3> if the Inter-RAT cell id of any of those GSM cells is not stored in the variable TRIGGERED_3A_EVENT:

4> store the Inter-RAT cell ids of the GSM cells that triggered the event and that were not previously stored in the variable TRIGGERED_3A_EVENT into that variable.

4> send a measurement report with IEs set as below:

5> in "inter-RAT measurement event result": "inter-RAT event identity" to "3a", "CHOICE BSIC" to "verified BSIC" and "Inter-RAT cell id" to the GSM cells that triggered the event (best one first), taking into account the cell individual offset of the GSM cells;

5> "measured results" and possible "additional measured results" according to 8.4.2, not taking into account the cell individual offset.

2> if equation 4 is fulfilled for a GSM cell whose inter-RAT cell id is stored in the variable TRIGGERED_3A_EVENT:

3> remove the inter-RAT cell id of that GSM cell from the variable TRIGGERED_3A_EVENT.

2> if equation 3 is fulfilled for the used frequency in UTRAN:

3> clear the variable TRIGGERED_3A_EVENT.

1> if the other RAT is GSM, and if IE "BSIC verification required" is set to "not required":

2> if equations 1 and 2 below have been fulfilled for a time period indicated by "Time to trigger" from the same instant, respectively for the used UTRAN frequency and for one or several BCCH ARFCNs considered in that inter-RAT measurement:

3> if any of those BCCH ARFCNs is not stored into the variable TRIGGERED_3A_EVENT:

4> store the BCCH ARFCNs that triggered the event and that were not previously stored in the variable TRIGGERED_3A_EVENT into that variable;

4> send a measurement report with IEs set as below:

5> in "inter-RAT measurement event result": "inter-RAT event identity" to "3a", "CHOICE BSIC" to "non verified BSIC" and "BCCH ARFCN" to BCCH ARFCNs that triggered the event (best one first), taking into account the cell individual offset of the GSM cells;

5> "measured results" and possible "additional measured results" according to 8.4.2, not taking into account the cell individual offset.

2> if equation 4 is fulfilled for a BCCH ARFCN that is stored in the variable TRIGGERED_3A_EVENT:

3> remove that BCCH ARFCN from the variable TRIGGERED_3A_EVENT.

2> if equation 3 is fulfilled for the used frequency in UTRAN:

3> clear the variable TRIGGERED_3A_EVENT.

Triggering conditions:

Equation 1:

$$Q_{Used} \leq T_{Used} - H_{3a}/2$$

The variables in the formula are defined as follows:

$\boldsymbol{Q_{Used}}$ is the quality estimate of the used UTRAN frequency.

$\boldsymbol{T_{Used}}$ is the absolute threshold that applies for the used frequency in that measurement.

$\boldsymbol{H_{3a}}$ is the hysteresis parameter for event 3a.

Equation 2:

$$M_{Other\ RAT} + CIO_{OtheRAT} \geq T_{Other\ RAT} + H_{3a}/2$$

The variables in the formula are defined as follows:

$\boldsymbol{M_{Other\ RAT}}$ is the measurement quantity for the cell of the other system.

$\underline{\boldsymbol{CIO_{Other\ RAT}}}$ <u>is the cell individual offset for the cell of the other system.</u>

$\boldsymbol{T_{Other\ RAT}}$ is the absolute threshold that applies for the other system in that measurement.

$\boldsymbol{H_{3a}}$ is the hysteresis parameter for event 3a.

Leaving triggered state conditions:

Equation 3:

$$Q_{Used} > T_{Used} + H_{3a}/2$$

The variables in the formula are defined as follows:

Q**Used*** is the quality estimate of the used UTRAN frequency.

T**Used*** is the absolute threshold that applies for the used frequency in that measurement.

H**3a*** is the hysteresis parameter for event 3a.

Equation 4:

$$M_{Other\ RAT} + CIO_{OtherRAT} < T_{Other\ RAT} - H_{3a}/2$$

The variables in the formula are defined as follows:

M**Other RAT*** is the measurement quantity for the cell of the other system. ***M*****Other RAT*** is expressed in dBm.

CIO**Other RAT*** is the cell individual offset for the cell of the other system.

T**Other RAT*** is the absolute threshold that applies for the other system in that measurement.

H**3a*** is the hysteresis parameter for event 3a.

3GPP TSG-RAN WG2 Meeting #33 ***Tdoc ⌘R2-023133***
Sophia Antipolis, France, 12th-15th November 2002

CR-Form-v7

CHANGE REQUEST

⌘ **25.331** **CR** **1768** ⌘ **rev** **-** ⌘ Current version: **4.7.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☒ Core Network ☐

Title:	⌘	Corrections to Activation time
Source:	⌘	Ericsson
Work item code:	⌘	TEI
Date:	⌘	13/11/2002
Category:	⌘	**A**
Release:	⌘	Rel-4

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:
2 *(GSM Phase 2)*
R96 *(Release 1996)*
R97 *(Release 1997)*
R98 *(Release 1998)*
R99 *(Release 1999)*
Rel-4 *(Release 4)*
Rel-5 *(Release 5)*
Rel-6 *(Release 6)*

Reason for change: ⌘

1. At RAN2#31 CR 1529r2 in R2-022226 was agreed. This CR included a note in section 8.6.3.1 on activation time. This note does not reflect the fact that activation time can be received in the RRC CONNECTION SETUP message causing the UE to transit from idle to CELL_FACH or CELL_DCH state.

It is assumed that for a UE in idle mode any activation time value except “now” should also result in UE behaviour unspecified for FDD and be allowed for TDD

2. The same editoiral error that exists in Rel’99 (8.2.2.3 Line break is missing) does not exist in Rel-4.

3. 8.6.7.19.2a Last three occasions of “set the variable…” have the wrong indentation.

4. 10.3.7.13 IE group called “Cell for measurement” although it contains several cells. The similar group in 10.3.7.33 is correctly called “Cells for measurement”.

5. 14.1.2.3 It is not clear if the cell individual offset should be taken into account when including cells in the event list of event 1c.

6. 14.3.1.1 $CIO_{OtherRAT}$ in formula 2 is not explained.

Summary of change: ⌘

1. Sentence in section 8.6.3.1 modified to also forbid use of an activation time other than “now” for the state transition idle to any RRC connected mode state for FDD and allow it for TDD.

2. Nothing done.

		3. 8.6.7.19.2a Last three occasions of “set the variable CONFIGURATION_INCOMPLETE to TRUE” is indented and changed to level 6. 4. 10.3.7.13 Last IE group name is renamed to “Cells for measurement” 5. Sentence added to explicitely state that cell individual offsets should be taken into account. 6. 14.3.1.1 $CIO_{OtherRAT}$ is added below equation 2 in the same way as below equation 4. **Impact analysis:** 1. For FDD the UE implementation is not affected since UE behaviour is unspecified. For TDD the UE should also for the idle mode to connected mode transition maintain CFN relative to Activation Time specified in RRC procedures. This could be considered an already a known requirement. UTRAN implementation is not directly affected given activation time other than “now” is utilised. 4 No foreseen impact if not implemented in the UE or UTRAN 3. Potentially if misinterpreted the UE might reject valid configurations if indentation level is misunderstood. 5. Specifications is currently ambigous. If implemented in the UE and not in UTRAN or the opposite the UE will trigger the event at different levels compared to what is assumed by UTRAN. 6. Could potentially lead to misinterpreations related to what CIO in the formulas mean, meaning that CIO will not be applied in the formula.
Consequences if not approved:	⌘	It could be interpreted that since the idle to CELL_FACH or CELL_DCH state transition is not mentioned in the NOTE, that other values than “now” are allowed to use in the RRC CONNECTION SETUP message for FDD. This would however, lead to unpredicted UE behaviour. Misunderstandings of intention of the text

Clauses affected:	⌘	8.6.3.1, 8.6.7.19.2a, 10.3.7.13, 14.1.2.3, 14.3.1.1			
		Y	**N**		
Other specs affected:	⌘		**X**	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

How to create CRs using this form:
Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

8.6.3 UE information elements

8.6.3.1 Activation time

If the UE receives a message in which presence is needed for the IE "Activation time", and the value is other than the default value "Now", the UE shall:

1> if the frame boundary immediately before the frame with the CFN (Connection Frame Number) value indicated by the IE "Activation Time" is at the TTI boundary common to all the transport channels that are multiplexed onto the same CCTrCh including any transport channel which is added, reconfigured or has been removed:

2> select that frame boundary as the activation time T.

1> else:

2> select the next TTI boundary, which is common to all the transport channels that are multiplexed onto the same CCTrCh including any transport channel which is added, reconfigured or has been removed, after the frame with the CFN (Connection Frame Number) value indicated by the IE "Activation Time", as the activation time T.

1> at the activation time T:

2> for a physical channel reconfiguration caused by the received message:

3> release the physical channel configuration, which was present before T;

3> initiate the establishment of the physical channel configuration as specified for the physical channel information elements in the received message as specified elsewhere.

2> for actions, other than a physical channel reconfiguration, caused by the received message:

3> perform the actions for the information elements in the received message as specified elsewhere.

If the UE receives a message in which presence is needed for the IE "Activation time", and the value is the default value "Now", the UE shall:

1> choose an activation time T as soon as possible after the reception of the message, respecting the performance requirements in subclause 13.5;

1> at the activation time T:

2> perform the actions for the information elements in the received message as specified elsewhere.

NOTE: In FDD, if the UE was in idle mode or CELL_FACH state upon reception of the message, regardless of the state the UE enters after reception of the message, and the value of the IE "Activation time" in the received message is different from "Now", the UE behaviour is unspecified. In TDD, if the UE was in idle mode or CELL_FACH state upon reception of the message, the value of the IE "Activation time" in the received message is relative to the CFN associated with the cell from which the message was received.

8.6.7.19.2a UE positioning OTDOA assistance data for UE-based

The UE shall:

1> if IE "UE positioning OTDOA reference cell info for UE-based" is received in System Information Block type 15.5 or in the MEASUREMENT CONTROL message or in the ASSISTANCE DATA DELIVERY:

2> update the variable UE_POSITIONING_OTDOA_DATA_UE_BASED accordingly;

2> store received cell information in the UE positioning reference cell info for UE-based in the variable UE_POSITIONING_OTDOA_DATA_UE_BASED, overwriting any existing information.

1> if IE "UE positioning OTDOA neighbour cell list for UE-based" is received in System Information Block type 15.5 or in the MEASUREMENT CONTROL message or in the ASSISTANCE DATA DELIVERY:

2> update the variable UE_POSITIONING_OTDOA_DATA_UE_BASED accordingly;

2> store received cell information in the neighbour cell info list for UE-based in the variable UE_POSITIONING_OTDOA_DATA_UE_BASED, overwriting any existing information.

1> if, according to its capabilities, UE does not support IPDLs and if IE "IPDL parameters" is received for the reference or any of the neighbour cells:

2> ignore this IE.

1> if IE "SFN offset validity" is set to FALSE:

2> ignore the IE "SFN offset".

1> if IE "UE positioning measurement" is received in the MEASUREMENT CONTROL message:

2> also perform the following consistency checks:

3> if IE "Positioning Methods" is set to "OTDOA":

4> if IE "UE positioning OTDOA reference cell info for UE-based" is not included and if UE positioning OTDOA reference cell info for UE-based in variable UE_POSITIONING_OTDOA_DATA_UE_BASED is empty:

5> set the variable CONFIGURATION_INCOMPLETE to TRUE.

3> if IE "Positioning Methods" is set to "OTDOA":

4> if IE "UE positioning OTDOA neighbour cell list for UE-based" is not included and if less than two neighbour cells are stored in UE positioning OTDOA neighbour cell info list for UE-based in variable UE_POSITIONING_OTDOA_DATA_UE_BASED:

5> set the variable CONFIGURATION_INCOMPLETE to TRUE.

4> if IE "Method Type" is set to "UE based":

5> if IE "UE positioning OTDOA reference cell info for UE-based" is included and if IE "Cell Position" for the reference cell is not included:

6~~4~~> set the variable CONFIGURATION_INCOMPLETE to TRUE.

5> if the IE "UE positioning OTDOA neighbour cell list for UE-based" is included and if cell position of less than two neighbour cells of the cells included in this IE and stored in variable UE_POSITIONING_OTDOA_DATA_UE_BASED are different and if those cell positions are not different to the one of the reference cell stored in variable UE_POSITIONING_OTDOA_DATA_UE_BASED:

6~~4~~> set the variable CONFIGURATION_INCOMPLETE to TRUE.

5> if the IE "UE positioning OTDOA neighbouring cell list for UE-based " is included and only two neighbour cells are included or stored in variable UE_POSITIONING_OTDOA_DATA_UE_BASED and if the IE "Round Trip Time" is neither included for the neighbour cells nor for the reference cell info:

6~~4~~> set the variable CONFIGURATION_INCOMPLETE to TRUE.

10.3.7.13 Inter-frequency cell info list

Contains the information for the list of measurement objects for an inter-frequency measurement.

Information Element/Group name	Need	Multi	Type and reference	Semantics description
CHOICE *Inter-frequency cell removal*	OP			
>Remove all inter-frequency cells				No data
>Remove some inter-frequency cells				
>>Removed inter-frequency cells	MP	1 .. <maxCellMeas>		
>>>Inter-frequency cell id	MP		Integer(0 .. <maxCellMeas>-1)	
>No inter-frequency cells removed				No data
New inter-frequency cells	OP	1 to <maxCellMeas>		
>Inter-frequency cell id	MD		Integer(0 .. <maxCellMeas>-1)	
>Frequency info	MD		Frequency info 10.3.6.36	Default value is the value of the previous "frequency info" in the list. NOTE: The first occurrence is then MP.
>Cell info	MP		Cell info 10.3.7.2	
Cells for measurement	CV-*BCHopt*	1 to <maxCellMeas>		
>Inter-frequency cell id	MP		Integer(0 .. <maxCellMeas>-1)	

Condition	Explanation
BCHopt	This IE is not needed when sent in SYSTEM INFORMATION. Otherwise, the IE is Optional

14.1.2.3 Reporting event 1C: A non-active primary CPICH becomes better than an active primary CPICH

When an intra-frequency measurement configuring event 1c is set up, the UE shall:

1> create a variable TRIGGERED_1C_EVENT related to that measurement, which shall initially be empty;

1> delete this variable when the measurement is released.

When event 1C is configured in the UE, the UE shall:

1> if "Measurement quantity" is "pathloss" and Equation 1 below is fulfilled for one or more primary CPICHs, or if "Measurement quantity" is "CPICH Ec/N0" or "CPICH RSCP", and Equation 2 below is fulfilled for one or more primary CPICHs, for each of these primary CPICHs:

2> if all required reporting quantities are available for that cell; and

2> if the equations have been fulfilled for a time period indicated by "Time to trigger", and if the primary CPICH that is better is not included in the active set but the other primary CPICH is any of the primary CPICHs included in the active set, and if that first primary CPICH is not included in the "cells triggered" in the variable TRIGGERED_1C_EVENT:

3> include that primary CPICH in the "cells recently triggered" in the variable TRIGGERED_1C_EVENT.

1> if the value of "Replacement activation threshold" for this event is less than or equal to the current number of cells in the active set or equal to 0 and if any primary CPICHs are stored in the "cells recently triggered" in the variable TRIGGERED_1C_EVENT:

2> if "Reporting interval" for this event is not equal to 0:

3> if the IE "Periodical reporting running" in the variable TRIGGERED_1C_EVENT is set to FALSE:

4> start a timer for with the value of "Reporting interval" for this event and set the IE "Periodical reporting running" in the variable TRIGGERED_1C_EVENT to TRUE.

3> set "sent reports" for that primary CPICH in the variable TRIGGERED_1C_EVENT to 1.

2> send a measurement report with IEs set as below:

3> set in "intra-frequency measurement event results": "Intrafrequency event identity" to "1c"; and

3> include in "cell measurement event results" all entries of the "cells recently triggered" in the variable TRIGGERED_1C_EVENT not in the active set as well as the "primary CPICH info" of all the primary CPICHs in the active set for which the measured value is worse (i.e. greater for pathloss and less for the other measurement quantities) than the one of the entry in "cell recently triggered" that has the best measured value taking into account their cell individual offset.. The "primary CPICH info" for those cells shall be ordered according to their measured value taking into account their cell individual offset, beginning with the best cell to the worst one;

3> set the IE "measured results" and the IE "additional measured results" according to subclause 8.4.2, not taking into account the cell individual offset for each cell.

2> move all entries from "cells recently triggered" to "cells triggered" in the variable TRIGGERED_1C_EVENT.

1> if the timer for the periodical reporting has expired:

2> if any primary CPICH is included in the "cells triggered" in the variable TRIGGERED_1C_EVENT, and not included in the current active set:

3> if "Reporting interval" for this event is not equal to 0, and if "Amount of reporting" is greater than "sent reports" stored for that primary CPICH, in "cells triggered" in the variable TRIGGERED_1C_EVENT:

4> increment the stored counter "sent reports" for all CPICH in "cell triggered" in variable TRIGGERED_1C_EVENT;

4> start a timer with the value of "Reporting interval" for this event;

4> send a measurement report with IEs set as below:

5> set in "intra-frequency measurement event results": "Intrafrequency event identity" to "1c"; and

5> include in "cell measurement event results" all entries of the variable TRIGGERED_1C_EVENT with value of IE "sent report" smaller than value of "Amount of reporting" and that are not part of the active set as well as the "primary CPICH info" of all the primary CPICHs in the active set for which the measured value is worse (i.e. greater for pathloss and less for the other measurement quantities) than the one of the entry in "cell recently triggered" that has the best measured value, ordering the "primary CPICH info" according to their measured value beginning with the best cell to the worst one, taking into account the cell individual offset for each cell;

5> set the IE "measured results" and the IE "additional measured results" according to subclause 8.4.2, not taking into account the cell individual offset for each cell.

4> if "sent reports" in variable TRIGGERED_1C_EVENT is greater than "Amount of reporting" for all entries:

5> set the IE "Periodical Reporting running" in the variable TRIGGERED_1C_EVENT to FALSE and disable the timer for the periodical reporting.

1> if "Measurement quantity" is "pathloss" and Equation 3 below is fulfilled for a primary CPICH, or if "Measurement quantity" is "CPICH Ec/N0" or "CPICH RSCP", and Equation 4 below is fulfilled for a primary CPICH or;

1> if a primary CPICH is added to the active set:

2> if that primary CPICH is included in the "cells triggered" or "cells recently triggered" in the variable TRIGGERED_1C_EVENT:

3> remove the entry of that primary CPICH from "cells triggered" or "cells recently triggered" in the variable TRIGGERED_1C_EVENT.

3> if no entry in the variable TRIGGERED_1C_EVENT has a value of "sent reports" smaller than "Amount of reporting":

4> stop the reporting interval timer;

4> set the IE "Periodical reporting running" in the variable TRIGGERED_1C_EVENT to FALSE.

Equation 1 (Triggering condition for pathloss)

$$10 \cdot Log M_{New} + CIO_{New} \leq 10 \cdot Log M_{InAS} + CIO_{InAS} - H_{1c}/2,$$

Equation 2 (Triggering condition for all the other measurement quantities)

$$10 \cdot Log M_{New} + CIO_{New} \geq 10 \cdot Log M_{InAS} + CIO_{InAS} + H_{1c}/2,$$

Equation 3 (Leaving triggering condition for pathloss)

$$10 \cdot Log M_{New} + CIO_{New} > 10 \cdot Log M_{InAS} + CIO_{InAS} + H_{1c}/2,$$

Equation 4 (Leaving triggering condition for all the other measurement quantities)

$$10 \cdot Log M_{New} + CIO_{New} < 10 \cdot Log M_{InAS} + CIO_{InAS} - H_{1c}/2,$$

The variables in the formula are defined as follows:

$\boldsymbol{M_{New}}$ is the measurement result of the cell not included in the active set.

$\boldsymbol{CIO_{New}}$ is the individual cell offset for the cell becoming better than the cell in the active set if an individual cell offset is stored for that cell. Otherwise it is equal to 0.

For pathloss:

$\boldsymbol{M_{InAS}}$ is the measurement result of the cell in the active set with the highest measurement result.

For other measurement quantities:

$\boldsymbol{M_{InAS}}$ is the measurement result of the cell in the active set with the lowest measurement result.

$\boldsymbol{CIO_{InAS}}$ is the individual cell offset for the cell in the active set that is becoming worse than the new cell.

$\boldsymbol{H_{1c}}$ is the hysteresis parameter for the event 1c.

If the measurement results are pathloss or CPICH-Ec/No then $\boldsymbol{M_{New}}$ and $\boldsymbol{M_{inAS}}$ are expressed as ratios.

If the measurement result is CPICH-RSCP then $\boldsymbol{M_{New}}$ and $\boldsymbol{M_{inAS}}$ are expressed in mW.

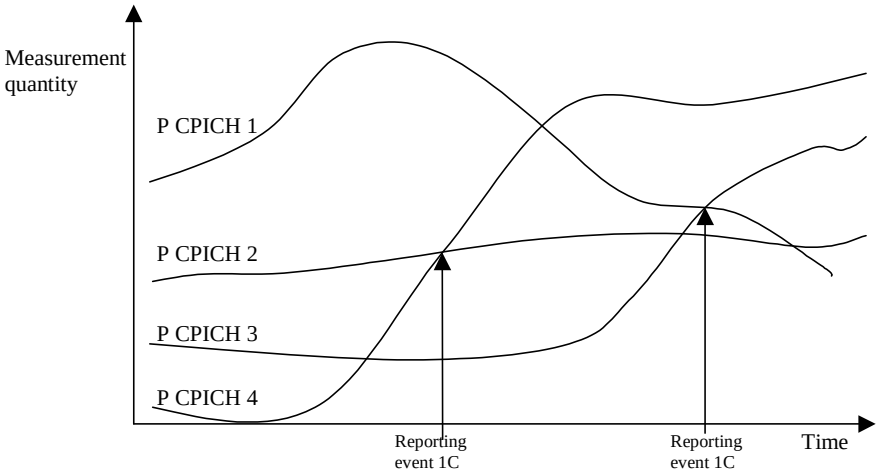

Figure 14.1.2.3-1 [Informative]: A primary CPICH that is not included in the active set becomes better than a primary CPICH that is in the active set

In this figure, the parameters hysteresis and time to trigger, as well as the cell individual offsets for all cells are equal to 0. In this example the cells belonging to primary CPICH 1 and 2 are in the active set, but the cells transmitting primary CPICH 3 and CPICH 4 are not (yet) in the active set.

The first measurement report is sent when primary CPICH 4 becomes better than primary CPICH 2. The "cell measurement event result" of the measurement report contains the information of primary CPICH 4 and CPICH 2.

Assuming that the active set has been updated after the first measurement report (active set is now primary CPICH 1 and primary CPICH 4), the second report is sent when primary CPICH 3 becomes better than primary CPICH 1. The "cell measurement event result" of the second measurement report contains the information of primary CPICH 3 and primary CPICH 1.

14.3.1.1 Event 3a: The estimated quality of the currently used UTRAN frequency is below a certain threshold **and** the estimated quality of the other system is above a certain threshold.

When an inter-RAT measurement configuring event 3a is set up, the UE shall:

1> create a variable TRIGGERED_3A_EVENT related to that measurement, which shall initially be empty;

1> delete this variable when the measurement is released.

When event 3a is configured in the UE within a measurement, the UE shall:

1> if the other RAT is GSM, and if IE "BSIC verification required" is set to "required":

2> if equations 1 and 2 below have both been fulfilled for a time period indicated by "Time to trigger" from the same instant, respectively for the used UTRAN frequency and for one or several GSM cells that match any of the BCCH ARFCN and BSIC combinations considered in that inter-RAT measurement:

3> if the Inter-RAT cell id of any of those GSM cells is not stored in the variable TRIGGERED_3A_EVENT:

4> store the Inter-RAT cell ids of the GSM cells that triggered the event and that were not previously stored in the variable TRIGGERED_3A_EVENT into that variable.

4> send a measurement report with IEs set as below:

5> in "inter-RAT measurement event result": "inter-RAT event identity" to "3a", "CHOICE BSIC" to "verified BSIC" and "Inter-RAT cell id" to the GSM cells that triggered the event (best one first), taking into account the cell individual offset of the GSM cells;

5> "measured results" and possible "additional measured results" according to 8.4.2, not taking into account the cell individual offset.

2> if equation 4 is fulfilled for a GSM cell whose inter-RAT cell id is stored in the variable TRIGGERED_3A_EVENT:

3> remove the inter-RAT cell id of that GSM cell from the variable TRIGGERED_3A_EVENT.

2> if equation 3 is fulfilled for the used frequency in UTRAN:

3> clear the variable TRIGGERED_3A_EVENT.

1> if the other RAT is GSM, and if IE "BSIC verification required" is set to "not required":

2> if equations 1 and 2 below have been fulfilled for a time period indicated by "Time to trigger" from the same instant, respectively for the used UTRAN frequency and for one or several BCCH ARFCNs considered in that inter-RAT measurement:

3> if any of those BCCH ARFCNs is not stored into the variable TRIGGERED_3A_EVENT:

4> store the BCCH ARFCNs that triggered the event and that were not previously stored in the variable TRIGGERED_3A_EVENT into that variable;

4> send a measurement report with IEs set as below:

5> in "inter-RAT measurement event result": "inter-RAT event identity" to "3a", "CHOICE BSIC" to "non verified BSIC" and "BCCH ARFCN" to BCCH ARFCNs that triggered the event (best one first), taking into account the cell individual offset of the GSM cells;

5> "measured results" and possible "additional measured results" according to 8.4.2, not taking into account the cell individual offset.

2> if equation 4 is fulfilled for a BCCH ARFCN that is stored in the variable TRIGGERED_3A_EVENT:

3> remove that BCCH ARFCN from the variable TRIGGERED_3A_EVENT.

2> if equation 3 is fulfilled for the used frequency in UTRAN:

3> clear the variable TRIGGERED_3A_EVENT.

Triggering conditions:

Equation 1:

$$Q_{Used} \leq T_{Used} - H_{3a}/2$$

The variables in the formula are defined as follows:

$\boldsymbol{Q_{Used}}$ is the quality estimate of the used UTRAN frequency.

$\boldsymbol{T_{Used}}$ is the absolute threshold that applies for the used frequency in that measurement.

$\boldsymbol{H_{3a}}$ is the hysteresis parameter for event 3a.

Equation 2:

$$M_{Other\ RAT} + CIO_{OtherRAT} \geq T_{Other\ RAT} + H_{3a}/2$$

The variables in the formula are defined as follows:

$\boldsymbol{M_{Other\ RAT}}$ is the measurement quantity for the cell of the other system.

$\underline{\boldsymbol{CIO_{Other\ RAT}}}$ <u>is the cell individual offset for the cell of the other system.</u>

$\boldsymbol{T_{Other\ RAT}}$ is the absolute threshold that applies for the other system in that measurement.

***H**3a* is the hysteresis parameter for event 3a.

Leaving triggered state conditions:

Equation 3:

$$Q_{Used} > T_{Used} + H_{3a}/2$$

The variables in the formula are defined as follows:

***Q**Used* is the quality estimate of the used UTRAN frequency.

***T**Used* is the absolute threshold that applies for the used frequency in that measurement.

***H**3a* is the hysteresis parameter for event 3a.

Equation 4:

$$M_{Other\ RAT} + CIO_{OtherRAT} < T_{Other\ RAT} - H_{3a}/2$$

The variables in the formula are defined as follows:

***M**Other RAT* is the measurement quantity for the cell of the other system. ***M**Other RAT* is expressed in dBm.

***CIO**Other RAT* is the cell individual offset for the cell of the other system.

***T**Other RAT* is the absolute threshold that applies for the other system in that measurement.

***H**3a* is the hysteresis parameter for event 3a.

3GPP TSG-RAN WG2 Meeting #33 **Tdoc ⌘R2-023134**
Sophia Antipolis, France, 12th-15th November 2002

CR-Form-v7

CHANGE REQUEST

⌘ **25.331** **CR** **1769** ⌘ **rev** **-** ⌘ Current version: **5.2.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ [ ] ME [X] Radio Access Network [X] Core Network [ ]

Title:	⌘	Corrections to Activation time
Source:	⌘	Ericsson
Work item code:	⌘	TEI
Date:	⌘	13/11/2002
Category:	⌘	**A**
Release:	⌘	Rel-5

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:
2 *(GSM Phase 2)*
R96 *(Release 1996)*
R97 *(Release 1997)*
R98 *(Release 1998)*
R99 *(Release 1999)*
Rel-4 *(Release 4)*
Rel-5 *(Release 5)*
Rel-6 *(Release 6)*

Reason for change: ⌘

1. At RAN2#31 CR 1529r2 in R2-022226 was agreed. This CR included a note in section 8.6.3.1 on activation time. This note does not reflect the fact that activation time can be received in the RRC CONNECTION SETUP message causing the UE to transit from idle to CELL_FACH or CELL_DCH state.

It is assumed that for a UE in idle mode any activation time value except “now” should also result in UE behaviour unspecified for FDD and be allowed for TDD

2. The same editoiral error that exists in Rel’99 (8.2.2.3 Line break is missing) does not exist in Rel-5. It is also so that all the text related to in TDD that do exist in Rel’99 and Rel’4 does not exist in Rel-5.

3. 8.6.7.19.2a Last three occasions of “set the variable…” have the wrong indentation.

4. 10.3.7.13 IE group called “Cell for measurement” although it contains several cells. The similar group in 10.3.7.33 is correctly called “Cells for measurement”.

5. 14.1.2.3 It is not clear if the cell individual offset should be taken into account when including cells in the event list of event 1c.

6. 14.3.1.1 $CIO_{OtherRAT}$ in formula 2 is not explained.

Summary of change: ⌘

1. Sentence in section 8.6.3.1 modified to also forbid use of an activation time other than “now” for the state transition idle to any RRC connected mode state for FDD and allow it for TDD.

		2. Nothing done. 3. 8.6.7.19.2a Last three occasions of “set the variable CONFIGURATION_INCOMPLETE to TRUE” is indented and changed to level 6. 4. 10.3.7.13 Last IE group name is renamed to “Cells for measurement” 5. Sentence added to explicitely state that cell individual offsets should be taken into account. 6. 14.3.1.1 $CIO_{OtherRAT}$ is added below equation 2 in the same way as below equation 4. **Impact analysis:** 1. For FDD the UE implementation is not affected since UE behaviour is unspecified. For TDD the UE should also for the idle mode to connected mode transition maintain CFN relative to Activation Time specified in RRC procedures. This could be considered an already a known requirement. UTRAN implementation is not directly affected given activation time other than “now” is utilised. 4 No foreseen impact if not implemented in the UE or UTRAN 3. Potentially if misinterpreted the UE might reject valid configurations if indentation level is misunderstood. 5. Specifications is currently ambigous. If implemented in the UE and not in UTRAN or the opposite the UE will trigger the event at different levels compared to what is assumed by UTRAN. 6. Could potentially lead to misinterpreations related to what CIO in the formulas mean, meaning that CIO will not be applied in the formula.
Consequences if not approved:	⌘	It could be interpreted that since the idle to CELL_FACH or CELL_DCH state transition is not mentioned in the NOTE, that other values than “now” are allowed to use in the RRC CONNECTION SETUP message for FDD. This would however, lead to unpredicted UE behaviour. Misunderstandings of intention of the text

Clauses affected:	⌘	8.6.3.1, 8.6.7.19.2a, 10.3.7.13, 14.1.2.3, 14.3.1.1			
Other specs affected:	⌘	**Y**	**N**		
			X	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

How to create CRs using this form:
Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

8.6.3 UE information elements

8.6.3.1 Activation time

If the UE receives a message in which presence is needed for the IE "Activation time", and the value is other than the default value "Now", the UE shall:

1> if the frame boundary immediately before the frame with the CFN (Connection Frame Number) value indicated by the IE "Activation Time" is at the TTI boundary common to all the transport channels that are multiplexed onto the same CCTrCh including any transport channel which is added, reconfigured or has been removed:

2> select that frame boundary as the activation time T.

1> else:

2> select the next TTI boundary, which is common to all the transport channels that are multiplexed onto the same CCTrCh including any transport channel which is added, reconfigured or has been removed, after the frame with the CFN (Connection Frame Number) value indicated by the IE "Activation Time", as the activation time T.

1> at the activation time T:

2> for a physical channel reconfiguration other than an HS-DSCH related reconfiguration, caused by the received message:

3> release the physical channel configuration, which was present before T;

3> initiate the establishment of the physical channel configuration as specified for the physical channel information elements in the received message as specified elsewhere.

2> for an HS-DSCH related reconfiguration caused by the received message:

3> select the HS-SCCH subframe boundary immediately before the first HS-SCCH subframe, which entirely falls within the 10 ms frame next after T;

3> start using, at that HS-SCCH subframe boundary, the new HS-DSCH configuration in the received message, replacing any old HS-DSCH configuration.

2> for actions, other than a physical channel reconfiguration, caused by the received message:

3> perform the actions for the information elements in the received message as specified elsewhere.

NOTE: An "HS-DSCH related reconfiguration" includes, in particular, reconfigurations that need to be time-aligned with the 2ms subframe of the HS-SCCH, HS-PDSCH and/or HS-DPCCH. For example, start and stop of HS-SCCH reception and serving HS-DSCH cell change.

If the UE receives a message in which presence is needed for the IE "Activation time", and the value is the default value "Now", the UE shall:

1> choose an activation time T as soon as possible after the reception of the message, respecting the performance requirements in subclause 13.5;

1> at the activation time T:

2> perform the actions for the information elements in the received message as specified elsewhere.

NOTE: In FDD, if the UE was in idle mode or CELL_FACH state upon reception of the message, regardless of the state the UE enters after reception of the message, and the value of the IE "Activation time" in the received message is different from "Now", the UE behaviour is unspecified. In TDD, if the UE was in idle mode or CELL_FACH state upon reception of the message, the value of the IE "Activation time" in the received message is relative to the CFN associated with the cell from which the message was received.

8.6.7.19.2a UE positioning OTDOA assistance data for UE-based

The UE shall:

1> if IE "UE positioning OTDOA reference cell info for UE-based" is received in System Information Block type 15.5 or in the MEASUREMENT CONTROL message or in the ASSISTANCE DATA DELIVERY:

2> update the variable UE_POSITIONING_OTDOA_DATA_UE_BASED accordingly;

2> store received cell information in the UE positioning reference cell info for UE-based in the variable UE_POSITIONING_OTDOA_DATA_UE_BASED, overwriting any existing information.

1> if IE "UE positioning OTDOA neighbour cell list for UE-based" is received in System Information Block type 15.5 or in the MEASUREMENT CONTROL message or in the ASSISTANCE DATA DELIVERY:

2> update the variable UE_POSITIONING_OTDOA_DATA_UE_BASED accordingly;

2> store received cell information in the neighbour cell info list for UE-based in the variable UE_POSITIONING_OTDOA_DATA_UE_BASED, overwriting any existing information.

1> if, according to its capabilities, UE does not support IPDLs and if IE "IPDL parameters" is received for the reference or any of the neighbour cells:

2> ignore this IE.

1> in 1.28 Mcps TDD:

2> if the IE "IPDL parameters" is received and the UE supports IPDLs:

3> ignore the IE IP_Slot;

3> if the IE "IP_PCCPCH" is set to FALSE:

4> configure the physical layer with IP_Sub to be first subframe according to [33].

3> if the IE "IP_PCCPCH" is set to TRUE:

4> configure the physical layer with IP_Sub to be second subframe according to [33].

3> if the IE "IP_PCCPCH" is absent:

4> configure the physical layer with IP_Sub to use both subframes according to [33].

1> if IE "SFN offset validity" is set to FALSE:

2> ignore the IE "SFN offset".

1> if IE "UE positioning measurement" is received in the MEASUREMENT CONTROL message:

2> also perform the following consistency checks:

3> if IE "Positioning Methods" is set to "OTDOA":

4> if IE "UE positioning OTDOA reference cell info for UE-based" is not included and if UE positioning OTDOA reference cell info for UE-based in variable UE_POSITIONING_OTDOA_DATA_UE_BASED is empty:

5> set the variable CONFIGURATION_INCOMPLETE to TRUE.

3> if IE "Positioning Methods" is set to "OTDOA":

4> if IE "UE positioning OTDOA neighbour cell list for UE-based" is not included and if less than two neighbour cells are stored in UE positioning OTDOA neighbour cell info list for UE-based in variable UE_POSITIONING_OTDOA_DATA_UE_BASED:

5> set the variable CONFIGURATION_INCOMPLETE to TRUE.

4> if IE "Method Type" is set to "UE based":

5> if IE "UE positioning OTDOA reference cell info for UE-based" is included and if IE "Cell Position" for the reference cell is not included:

6~~4~~> set the variable CONFIGURATION_INCOMPLETE to TRUE.

5> if the IE "UE positioning OTDOA neighbour cell list for UE-based" is included and if cell position of less than two neighbour cells of the cells included in this IE and stored in variable UE_POSITIONING_OTDOA_DATA_UE_BASED are different and if those cell positions are not different to the one of the reference cell stored in variable UE_POSITIONING_OTDOA_DATA_UE_BASED:

6~~4~~> set the variable CONFIGURATION_INCOMPLETE to TRUE.

5> if the IE "UE positioning OTDOA neighbouring cell list for UE-based " is included and only two neighbour cells are included or stored in variable UE_POSITIONING_OTDOA_DATA_UE_BASED and if the IE "Round Trip Time" is neither included for the neighbour cells nor for the reference cell info:

6~~4~~> set the variable CONFIGURATION_INCOMPLETE to TRUE.

10.3.7.13 Inter-frequency cell info list

Contains the information for the list of measurement objects for an inter-frequency measurement.

Information Element/Group name	Need	Multi	Type and reference	Semantics description
CHOICE *Inter-frequency cell removal*	OP			
>Remove all inter-frequency cells				No data
>Remove some inter-frequency cells				
>>Removed inter-frequency cells	MP	1 .. <maxCellMeas>		
>>>Inter-frequency cell id	MP		Integer(0 .. <maxCellMeas>-1)	
>No inter-frequency cells removed				No data
New inter-frequency cells	OP	1 to <maxCellMeas>		
>Inter-frequency cell id	MD		Integer(0 .. <maxCellMeas>-1)	
>Frequency info	MD		Frequency info 10.3.6.36	Default value is the value of the previous "frequency info" in the list. NOTE: The first occurrence is then MP.
>Cell info	MP		Cell info 10.3.7.2	
Cells for measurement	CV-*BCHopt*	1 to <maxCellMeas>		
>Inter-frequency cell id	MP		Integer(0 .. <maxCellMeas>-1)	

Condition	Explanation
BCHopt	This IE is not needed when sent in SYSTEM INFORMATION. Otherwise, the IE is Optional

14.1.2.3 Reporting event 1C: A non-active primary CPICH becomes better than an active primary CPICH

When an intra-frequency measurement configuring event 1c is set up, the UE shall:

1> create a variable TRIGGERED_1C_EVENT related to that measurement, which shall initially be empty;

1> delete this variable when the measurement is released.

When event 1C is configured in the UE, the UE shall:

1> if "Measurement quantity" is "pathloss" and Equation 1 below is fulfilled for one or more primary CPICHs, or if "Measurement quantity" is "CPICH Ec/N0" or "CPICH RSCP", and Equation 2 below is fulfilled for one or more primary CPICHs, for each of these primary CPICHs:

2> if all required reporting quantities are available for that cell; and

2> if the equations have been fulfilled for a time period indicated by "Time to trigger", and if the primary CPICH that is better is not included in the active set but the other primary CPICH is any of the primary CPICHs included in the active set, and if that first primary CPICH is not included in the "cells triggered" in the variable TRIGGERED_1C_EVENT:

3> include that primary CPICH in the "cells recently triggered" in the variable TRIGGERED_1C_EVENT.

1> if the value of "Replacement activation threshold" for this event is less than or equal to the current number of cells in the active set or equal to 0 and if any primary CPICHs are stored in the "cells recently triggered" in the variable TRIGGERED_1C_EVENT:

2> if "Reporting interval" for this event is not equal to 0:

3> if the IE "Periodical reporting running" in the variable TRIGGERED_1C_EVENT is set to FALSE:

4> start a timer for with the value of "Reporting interval" for this event and set the IE "Periodical reporting running" in the variable TRIGGERED_1C_EVENT to TRUE.

3> set "sent reports" for that primary CPICH in the variable TRIGGERED_1C_EVENT to 1.

2> send a measurement report with IEs set as below:

3> set in "intra-frequency measurement event results": "Intrafrequency event identity" to "1c"; and

3> include in "cell measurement event results" all entries of the "cells recently triggered" in the variable TRIGGERED_1C_EVENT not in the active set as well as the "primary CPICH info" of all the primary CPICHs in the active set for which the measured value is worse (i.e. greater for pathloss and less for the other measurement quantities) than the one of the entry in "cell recently triggered" that has the best measured value taking into account their cell individual offset. The "primary CPICH info" for those cells shall be ordered according to their measured value taking into account their cell individual offset, beginning with the best cell to the worst one;

3> set the IE "measured results" and the IE "additional measured results" according to subclause 8.4.2, not taking into account the cell individual offset for each cell.

2> move all entries from "cells recently triggered" to "cells triggered" in the variable TRIGGERED_1C_EVENT.

1> if the timer for the periodical reporting has expired:

2> if any primary CPICH is included in the "cells triggered" in the variable TRIGGERED_1C_EVENT, and not included in the current active set:

3> if "Reporting interval" for this event is not equal to 0, and if "Amount of reporting" is greater than "sent reports" stored for that primary CPICH, in "cells triggered" in the variable TRIGGERED_1C_EVENT:

4> increment the stored counter "sent reports" for all CPICH in "cell triggered" in variable TRIGGERED_1C_EVENT;

4> start a timer with the value of "Reporting interval" for this event;

4> send a measurement report with IEs set as below:

5> set in "intra-frequency measurement event results": "Intrafrequency event identity" to "1c"; and

5> include in "cell measurement event results" all entries of the variable TRIGGERED_1C_EVENT with value of IE "sent report" smaller than value of "Amount of reporting" and that are not part of the active set as well as the "primary CPICH info" of all the primary CPICHs in the active set for which the measured value is worse (i.e. greater for pathloss and less for the other measurement quantities) than the one of the entry in "cell recently triggered" that has the best measured value, ordering the "primary CPICH info" according to their measured value beginning with the best cell to the worst one, taking into account the cell individual offset for each cell;

5> set the IE "measured results" and the IE "additional measured results" according to subclause 8.4.2, not taking into account the cell individual offset for each cell.

4> if "sent reports" in variable TRIGGERED_1C_EVENT is greater than "Amount of reporting" for all entries:

5> set the IE "Periodical Reporting running" in the variable TRIGGERED_1C_EVENT to FALSE and disable the timer for the periodical reporting.

1> if "Measurement quantity" is "pathloss" and Equation 3 below is fulfilled for a primary CPICH, or if "Measurement quantity" is "CPICH Ec/N0" or "CPICH RSCP", and Equation 4 below is fulfilled for a primary CPICH or;

1> if a primary CPICH is added to the active set:

2> if that primary CPICH is included in the "cells triggered" or "cells recently triggered" in the variable TRIGGERED_1C_EVENT:

3> remove the entry of that primary CPICH from "cells triggered" or "cells recently triggered" in the variable TRIGGERED_1C_EVENT.

3> if no entry in the variable TRIGGERED_1C_EVENT has a value of "sent reports" smaller than "Amount of reporting":

4> stop the reporting interval timer;

4> set the IE "Periodical reporting running" in the variable TRIGGERED_1C_EVENT to FALSE.

Equation 1 (Triggering condition for pathloss)

$$10 \cdot Log M_{New} + CIO_{New} \leq 10 \cdot Log M_{InAS} + CIO_{InAS} - H_{1c}/2,$$

Equation 2 (Triggering condition for all the other measurement quantities)

$$10 \cdot Log M_{New} + CIO_{New} \geq 10 \cdot Log M_{InAS} + CIO_{InAS} + H_{1c}/2,$$

Equation 3 (Leaving triggering condition for pathloss)

$$10 \cdot Log M_{New} + CIO_{New} > 10 \cdot Log M_{InAS} + CIO_{InAS} + H_{1c}/2,$$

Equation 4 (Leaving triggering condition for all the other measurement quantities)

$$10 \cdot Log M_{New} + CIO_{New} < 10 \cdot Log M_{InAS} + CIO_{InAS} - H_{1c}/2,$$

The variables in the formula are defined as follows:

M_{New} is the measurement result of the cell not included in the active set.

CIO_{New} is the individual cell offset for the cell becoming better than the cell in the active set if an individual cell offset is stored for that cell. Otherwise it is equal to 0.

For pathloss:

M_{InAS} is the measurement result of the cell in the active set with the highest measurement result.

For other measurement quantities:

M_{InAS} is the measurement result of the cell in the active set with the lowest measurement result.

CIO_{InAS} is the individual cell offset for the cell in the active set that is becoming worse than the new cell.

H_{1c} is the hysteresis parameter for the event 1c.

If the measurement results are pathloss or CPICH-Ec/No then M_{New} and M_{inAS} are expressed as ratios.

If the measurement result is CPICH-RSCP then M_{New} and M_{inAS} are expressed in mW.

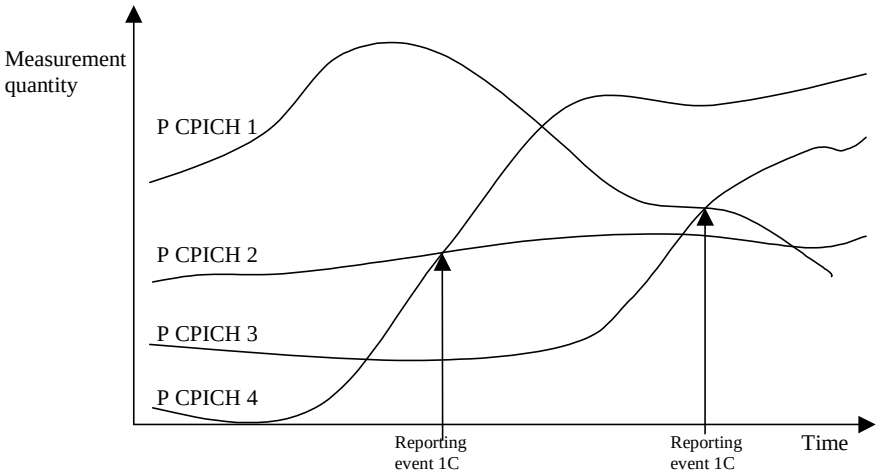

Figure 14.1.2.3-1 [Informative]: A primary CPICH that is not included in the active set becomes better than a primary CPICH that is in the active set

In this figure, the parameters hysteresis and time to trigger, as well as the cell individual offsets for all cells are equal to 0. In this example the cells belonging to primary CPICH 1 and 2 are in the active set, but the cells transmitting primary CPICH 3 and CPICH 4 are not (yet) in the active set.

The first measurement report is sent when primary CPICH 4 becomes better than primary CPICH 2. The "cell measurement event result" of the measurement report contains the information of primary CPICH 4 and CPICH 2.

Assuming that the active set has been updated after the first measurement report (active set is now primary CPICH 1 and primary CPICH 4), the second report is sent when primary CPICH 3 becomes better than primary CPICH 1. The "cell measurement event result" of the second measurement report contains the information of primary CPICH 3 and primary CPICH 1.

14.3.1.1 Event 3a: The estimated quality of the currently used UTRAN frequency is below a certain threshold **and** the estimated quality of the other system is above a certain threshold.

When an inter-RAT measurement configuring event 3a is set up, the UE shall:

1> create a variable TRIGGERED_3A_EVENT related to that measurement, which shall initially be empty;

1> delete this variable when the measurement is released.

When event 3a is configured in the UE within a measurement, the UE shall:

1> if the other RAT is GSM, and if IE "BSIC verification required" is set to "required":

2> if equations 1 and 2 below have both been fulfilled for a time period indicated by "Time to trigger" from the same instant, respectively for the used UTRAN frequency and for one or several GSM cells that match any of the BCCH ARFCN and BSIC combinations considered in that inter-RAT measurement:

3> if the Inter-RAT cell id of any of those GSM cells is not stored in the variable TRIGGERED_3A_EVENT:

4> store the Inter-RAT cell ids of the GSM cells that triggered the event and that were not previously stored in the variable TRIGGERED_3A_EVENT into that variable.

4> send a measurement report with IEs set as below:

5> in "inter-RAT measurement event result": "inter-RAT event identity" to "3a", "CHOICE BSIC" to "verified BSIC" and "Inter-RAT cell id" to the GSM cells that triggered the event (best one first), taking into account the cell individual offset of the GSM cells;

5> "measured results" and possible "additional measured results" according to 8.4.2, not taking into account the cell individual offset.

2> if equation 4 is fulfilled for a GSM cell whose inter-RAT cell id is stored in the variable TRIGGERED_3A_EVENT:

3> remove the inter-RAT cell id of that GSM cell from the variable TRIGGERED_3A_EVENT.

2> if equation 3 is fulfilled for the used frequency in UTRAN:

3> clear the variable TRIGGERED_3A_EVENT.

1> if the other RAT is GSM, and if IE "BSIC verification required" is set to "not required":

2> if equations 1 and 2 below have been fulfilled for a time period indicated by "Time to trigger" from the same instant, respectively for the used UTRAN frequency and for one or several BCCH ARFCNs considered in that inter-RAT measurement:

3> if any of those BCCH ARFCNs is not stored into the variable TRIGGERED_3A_EVENT:

4> store the BCCH ARFCNs that triggered the event and that were not previously stored in the variable TRIGGERED_3A_EVENT into that variable;

4> send a measurement report with IEs set as below:

5> in "inter-RAT measurement event result": "inter-RAT event identity" to "3a", "CHOICE BSIC" to "non verified BSIC" and "BCCH ARFCN" to BCCH ARFCNs that triggered the event (best one first), taking into account the cell individual offset of the GSM cells;

5> "measured results" and possible "additional measured results" according to 8.4.2, not taking into account the cell individual offset.

2> if equation 4 is fulfilled for a BCCH ARFCN that is stored in the variable TRIGGERED_3A_EVENT:

3> remove that BCCH ARFCN from the variable TRIGGERED_3A_EVENT.

2> if equation 3 is fulfilled for the used frequency in UTRAN:

3> clear the variable TRIGGERED_3A_EVENT.

Triggering conditions:

Equation 1:

$$Q_{Used} \leq T_{Used} - H_{3a}/2$$

The variables in the formula are defined as follows:

Q_{Used} is the quality estimate of the used UTRAN frequency.

T_{Used} is the absolute threshold that applies for the used frequency in that measurement.

H_{3a} is the hysteresis parameter for event 3a.

Equation 2:

$$M_{Other\ RAT}+CIO_{OtherRAT} \geq T_{Other\ RAT}+H_{3a}/2$$

The variables in the formula are defined as follows:

$M_{Other\ RAT}$ is the measurement quantity for the cell of the other system.

$CIO_{Other\ RAT}$ is the cell individual offset for the cell of the other system.

$T_{Other\ RAT}$ is the absolute threshold that applies for the other system in that measurement.

H_{3a} is the hysteresis parameter for event 3a.

Leaving triggered state conditions:

Equation 3:

$$Q_{Used} > T_{Used}+H_{3a}/2$$

The variables in the formula are defined as follows:

Q_{Used} is the quality estimate of the used UTRAN frequency.

T_{Used} is the absolute threshold that applies for the used frequency in that measurement.

H_{3a} is the hysteresis parameter for event 3a.

Equation 4:

$$M_{Other\ RAT}+CIO_{OtherRAT} < T_{Other\ RAT}-H_{3a}/2$$

The variables in the formula are defined as follows:

$M_{Other\ RAT}$ is the measurement quantity for the cell of the other system. $M_{Other\ RAT}$ is expressed in dBm.

$CIO_{Other\ RAT}$ is the cell individual offset for the cell of the other system.

$T_{Other\ RAT}$ is the absolute threshold that applies for the other system in that measurement.

H_{3a} is the hysteresis parameter for event 3a.

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Sophia Antipolis, France, 12-15 November, 2002

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CHANGE REQUEST

⌘ **25.331** **CR** **1770** ⌘ **rev** **-** ⌘ Current version: **3.12.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ [ ] ME [X] Radio Access Network [X] Core Network [ ]

Title:	⌘	Numbering of "ASC Setting" IEs included in "PRACH partitioning" IE
Source:	⌘	Qualcomm
Work item code:	⌘	TEI
Date:	⌘	12 November 2002
Category:	⌘	**F**
Release:	⌘	R99

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:
2 *(GSM Phase 2)*
R96 *(Release 1996)*
R97 *(Release 1997)*
R98 *(Release 1998)*
R99 *(Release 1999)*
Rel-4 *(Release 4)*
Rel-5 *(Release 5)*
Rel-6 *(Release 6)*

Reason for change: ⌘

1. The UE behaviour is not clear when UTRAN tries to use an ASC which is undefined (the number of ASCs is lower than 8)

2. The numbering of ASCs could be implicitly defined by the order in the IE "PRACH partitioning" or by the ordering of the valid ASCs included in the "AC-to-ASC mapping" IE.

Summary of change: ⌘

1. It is clarified that if UTRAN uses (AC-to-ASC mapping) an undefined ASC, the UE behaviour is uspecified.

2. It is clarified that the numbering of the ASCs is defined by the order in which the IEs "ASC Setting" appear in the the IE "PRACH partitioning".

Isolated Impact Change Analysis.

These changes clarify the RACH procedures.
1. If UTRAN does not implement the PRACH procedure according to this CR, it could assign unspecified ASCs to a compliant UE. The UE could in these cases behave erratically.

2. If UTRAN does not implement this CR and the UE does, the ASC settings assigned to a particular UE could not be the intended ones, resulting in a QoS degradation while in CELL_FACH state. The different interpretation of the numbering could also lead to the issue 1 above, which could result in erratic UE behaviour.

It would not affect implementations behaving like indicated in the CR, it would affect implementations supporting the corrected functionality otherwise.

		Impact on Test Specifications None. The tests currently defined for ASC testing (TS 34.123-1) are not affected by these changes.
Consequences if not approved:	⌘	1. UTRAN implementations may try to assign undefined ASCs in the erroneous understanding that a default configuration should be used in such cases. The UE that have correctly implemented the specs would behave erratically in such cases. 2. If UTRAN and UE have a different understanding of the ASC numbering, the UE may not use the intended ASC settings, resulting in a degraded QoS when in CELL_FACH state. Moreover, if the ASC numbering is not univocous, it is more likely that an invalid ASC could be assigned, resulting in the problem of issue 1 above.

Clauses affected:	⌘	8.5.12, 8.5.13, 10.3.6.53, 11.3			
		Y	**N**		
Other specs affected:	⌘		**X**	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

How to create CRs using this form:
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[…]

8.5.12 Establishment of Access Service Classes

The PRACH resources (i.e. access slots and preamble signatures for FDD), timeslot (with specific frame allocation and channelisation code for TDD) may be divided between different Access Service Classes in order to provide different priorities of RACH usage. It is possible for more than one ASC or for all ASCs to be assigned to the same access slot/signature space in FDD or frame allocation in TDD.

Access Service Classes shall be numbered in the range $0 \le i \le \text{NumASC} \le 7$ (i.e. the maximum number of ASCs is 8). An ASC is defined by an identifier, *i*, that defines a certain partition of the PRACH resources and an associated persistence value P_i. A set of ASC parameters consists of "NumASC+1" such parameters (i, P_i), i = 0, …, NumASC.

PRACH partitions shall be established using the information element "PRACH partitioning". The persistence values P_i to be associated with each ASC shall be derived from the dynamic persistence level N = 1,…, 8 which is broadcast in SIB 7, and the persistence scaling factors s_i, broadcast in System Information Block Type 5 and possibly also in System Information Block Type 6, as follows:

$P(N) = 2^{-(N-1)}$

ASC # *i*	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**
P_i	1	P(N)	s_2 P(N)	s_3 P(N)	s_4 P(N)	s_5 P(N)	s_6P(N)	s_7 P(N)

Scaling factors s_i are provided optionally for i = 2,…, NumASC, where NumASC+1 is the number of ASCs as defined by PRACH partitioning. If no scaling factors are broadcast, default value 1 shall be used if NumASC ≥ 2.

If $k \ge 1$ scaling factors are broadcast and NumASC ≥ k+2 then the last scaling factor s_{k+1} shall be used as default for the ASCs where $i > k$ +1.

The set of ASC parameters is provided to MAC with the CMAC-Config-REQ primitive (see [15]), the PRACH partitioning is provided to PHY using the CPHY-RL-Setup-REQ primitive (see [34]).

The ASC enumeration shall be such that it corresponds to the order of priority (ASC 0 = highest priority, ASC 7 = lowest priority). ASC 0 shall be used in case of Emergency Call or for reasons with equivalent priority.

ASCs are numbered according to order in which the IEs "ASC Setting" appear in the IE "PRACH partitioning", where the first IE "ASC Setting" describes ASC 0, the second IE "ASC Setting" describes ASC 1, etc.

At radio bearer setup/reconfiguration each involved logical channel is assigned a MAC Logical channel Priority (MLP) in the range 1,…,8. When the MAC sublayer is configured for RACH transmission in the UE, these MLP levels shall be employed for ASC selection on MAC.

8.5.13 Mapping of Access Classes to Access Service Classes

Access Classes shall only be applied at initial access, i.e. when sending an RRC CONNECTION REQUEST message. A mapping between Access Class (AC) and Access Service Class (ASC) shall be indicated by the information element "AC-to-ASC mapping" in System Information Block type 5. The correspondence between AC and ASC shall be indicated as follows.

AC	**0 - 9**	**10**	**11**	**12**	**13**	**14**	**15**
ASC	1st IE	2nd IE	3rd IE	4th IE	5th IE	6th IE	7th IE

In the table, "nth IE" designates an ASC number i in the range 0 - 7 to AC. If the ASC indicated by the "nth IE" is undefined, the UE behaviour is unspecified.

For the random access, the parameters implied by the respective ASC shall be employed. In case the UE is member of several ACs it shall select the ASC for the highest AC number. In connected mode, AC shall not be applied.

[…]

10.3.6.53 PRACH partitioning

Information Element/Group name	Need	Multi	Type and reference	Semantics description
Access Service class	MP	1 to maxASC		If only "NumASC+1" (with, NumASC+1 < maxASC) ASCs are listed, the remaining (NumASC+2 through maxASC) ASCs are unspecified.
ASC Setting	MD		ASC setting 10.3.6.6	The default values are same as the previous ASC. If the "default" is used for the first ASC, the default values are all available signatures and "all available sub-channels" for FDD and "all available channelisation codes" and "all available subchannels" with "subchannel size=Size 1" in TDD.

[…]

11.3 Information element definitions

[…]

```
ASCSetting-FDD ::=                      SEQUENCE {
    -- TABULAR: accessServiceClass-FDD is MD in tabular description
    -- Default value is previous ASC
    -- If this is the first ASC, the default value is all available signature and sub-channels
    accessServiceClass-FDD                  AccessServiceClass-FDD  OPTIONAL
}

ASCSetting-TDD ::=                      SEQUENCE {
    -- TABULAR: accessServiceClass-TDD is MD in tabular description
    -- Default value is previous ASC
    -- If this is the first ASC, the default value is all available channelisation codes and
    -- all available sub-channels with subchannelSize=size1.
    accessServiceClass-TDD                  AccessServiceClass-TDD  OPTIONAL
}
```

[…]

```
PRACH-Partitioning ::=              CHOICE {
    fdd                                 SEQUENCE (SIZE (1..maxASC)) OF
    -- TABULAR: If only "NumASC+1" (with, NumASC+1 < maxASC) ASCSetting-FDD are listed,
    -- the remaining (NumASC+2 through maxASC) ASCs are unspecified.
                                            ASCSetting-FDD,
    tdd                                 SEQUENCE (SIZE (1..maxASC)) OF
    -- TABULAR: If only "NumASC+1" (with, NumASC+1 < maxASC) ASCSetting-TDD are listed,
    -- the remaining (NumASC+2 through maxASC) ASCs are unspecified.
                                            ASCSetting-TDD
}
```

[…]

3GPP TSG-RAN2 Meeting #33 ***Tdoc ⌘R2-023136***
Sophia Antipolis, France, 12-15 November, 2002

CR-Form-v7

CHANGE REQUEST

⌘ **25.331** **CR** **1771** ⌘ **rev** **-** ⌘ Current version: **4.7.0** ⌘

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Proposed change affects: UICC apps⌘ [ ] ME [X] Radio Access Network [X] Core Network [ ]

Title:	⌘	Numbering of "ASC Setting" IEs included in "PRACH partitioning" IE
Source:	⌘	Qualcomm
Work item code:	⌘	TEI
Date:	⌘	12 November 2002
Category:	⌘	**A**
Release:	⌘	Rel-4

Use one of the following categories:
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Reason for change: ⌘

1. The UE behaviour is not clear when UTRAN tries to use an ASC which is undefined (the number of ASCs is lower than 8)

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		Y	**N**		
Other specs affected:	⌘		**X**	Other core specifications	⌘
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[…]

10.3.6.53 PRACH partitioning

Information Element/Group name	Need	Multi	Type and reference	Semantics description
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}
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[…]

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                                            ASCSetting-TDD
}

PRACH-Partitioning-LCR-r4 ::=       SEQUENCE (SIZE (1..maxASC)) OF
    -- TABULAR: If only "NumASC+1" (with, NumASC+1 < maxASC) ASCSetting-TDD-LCR-r4 are listed,
    -- the remaining (NumASC+2 through maxASC) ASCs are unspecified.
                                            ASCSetting-TDD-LCR-r4
```

[…]

3GPP TSG-RAN2 Meeting #33
Sophia Antipolis, France, 12-15 November, 2002

Tdoc ⌘R2-023137

CR-Form-v7

CHANGE REQUEST

⌘ **25.331** **CR** **1772** ⌘ **rev** **-** ⌘ Current version: **5.2.0** ⌘

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Proposed change affects: UICC apps⌘ [ ] ME [X] Radio Access Network [X] Core Network [ ]

Title:	⌘	Numbering of "ASC Setting" IEs included in "PRACH partitioning" IE
Source:	⌘	Qualcomm
Work item code:	⌘	TEI
Date:	⌘	12 November 2002
Category:	⌘	**A**
Release:	⌘	Rel-5

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8.5.12 Establishment of Access Service Classes

The PRACH resources (i.e. access slots and preamble signatures for FDD), timeslot (with specific frame allocation and channelisation code for TDD) may be divided between different Access Service Classes in order to provide different priorities of RACH usage. It is possible for more than one ASC or for all ASCs to be assigned to the same access slot/signature space in FDD or frame allocation in TDD.

Access Service Classes shall be numbered in the range $0 \le i \le \text{NumASC} \le 7$ (i.e. the maximum number of ASCs is 8). An ASC is defined by an identifier, *i*, that defines a certain partition of the PRACH resources and an associated persistence value P_i. A set of ASC parameters consists of "NumASC+1" such parameters (i, P_i), i = 0, …, NumASC.

PRACH partitions shall be established using the information element "PRACH partitioning". The persistence values P_i to be associated with each ASC shall be derived from the dynamic persistence level N = 1,…, 8 which is broadcast in SIB 7, and the persistence scaling factors s_i, broadcast in System Information Block Type 5 and possibly also in System Information Block Type 6, as follows:

$P(N) = 2^{-(N-1)}$

ASC # *i*	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**
P_i	1	P(N)	s_2 P(N)	s_3 P(N)	s_4 P(N)	s_5 P(N)	s_6P(N)	s_7 P(N)

Scaling factors s_i are provided optionally for i = 2,…, NumASC, where NumASC+1 is the number of ASCs as defined by PRACH partitioning. If no scaling factors are broadcast, default value 1 shall be used if NumASC ≥ 2.

If $k \ge 1$ scaling factors are broadcast and NumASC ≥ k+2 then the last scaling factor s_{k+1} shall be used as default for the ASCs where $i > k$ +1.

The set of ASC parameters is provided to MAC with the CMAC-Config-REQ primitive (see [15]), the PRACH partitioning is provided to PHY using the CPHY-RL-Setup-REQ primitive (see [34]).

The ASC enumeration shall be such that it corresponds to the order of priority (ASC 0 = highest priority, ASC 7 = lowest priority). ASC 0 shall be used in case of Emergency Call or for reasons with equivalent priority.

ASCs are numbered according to order in which the IEs "ASC Setting" appear in the IE "PRACH partitioning", whereas the first IE "ASC Setting" describes ASC 0, the second IE "ASC Setting" describes ASC 1, etc.

At radio bearer setup/reconfiguration each involved logical channel is assigned a MAC Logical channel Priority (MLP) in the range 1,…,8. When the MAC sublayer is configured for RACH transmission in the UE, these MLP levels shall be employed for ASC selection on MAC.

[…]

10.3.6.53 PRACH partitioning

Information Element/Group name	Need	Multi	Type and reference	Semantics description
Access Service class	MP	1 to maxASC		If only "NumASC+1" (with, NumASC+1 < maxASC) ASCs are listed, the remaining (NumASC+2 through maxASC) ASCs are unspecified.
ASC Setting	MD		ASC setting 10.3.6.6	The default values are same as the previous ASC. If the "default" is used for the first ASC, the default values are all available signatures and "all available sub-channels" for FDD and "all available channelisation codes" and "all available subchannels" with "subchannel size=Size 1" in TDD.

[…]

11.3 Information element definitions

[…]

```
PRACH-Partitioning ::=              CHOICE {
    fdd                                 SEQUENCE (SIZE (1..maxASC)) OF
    -- TABULAR: If only "NumASC+1" (with, NumASC+1 < maxASC) ASCSetting-FDD are listed,
    -- the remaining (NumASC+2 through maxASC) ASCs are unspecified.
                                            ASCSetting-FDD,
    tdd                                 SEQUENCE (SIZE (1..maxASC)) OF
    -- TABULAR: If only "NumASC+1" (with, NumASC+1 < maxASC) ASCSetting-TDD are listed,
    -- the remaining (NumASC+2 through maxASC) ASCs are unspecified.
                                            ASCSetting-TDD
}

PRACH-Partitioning-LCR-r4 ::=       SEQUENCE (SIZE (1..maxASC)) OF
    -- TABULAR: If only "NumASC+1" (with, NumASC+1 < maxASC) ASCSetting-TDD-LCR-r4 are listed,
    -- the remaining (NumASC+2 through maxASC) ASCs are unspecified.
                                            ASCSetting-TDD-LCR-r4
```

[…]

3GPP TSG-RAN WG2 Meeting #33
Sophia Antipolis, France, 12-15 November 2002

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CHANGE REQUEST

⌘ **25.331** **CR** **1777** ⌘ **rev** **3** ⌘ Current version: **3.12.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ [ ] ME [X] Radio Access Network [X] Core Network [ ]

Title:	⌘	Correction on support for compressed mode
Source:	⌘	Mitsubishi Electric (METE-RD), Motorola, Nortel, Siemens
Work item code:	⌘	TEI
Date:	⌘	15/11/2002
Category:	⌘	**F**
Release:	⌘	R99

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:
2 (GSM Phase 2)
R96 (Release 1996)
R97 (Release 1997)
R98 (Release 1998)
R99 (Release 1999)
Rel-4 (Release 4)
Rel-5 (Release 5)
Rel-6 (Release 6)

Reason for change: ⌘

1) It is unclear whether the UE shall support compressed mode when it does not need it. A widely spread misunderstanding was that support for compressed was not mandated when compressed mode is not needed.
2) The current "DPCH Compressed mode info" consistency check procedure is using the CELL_INFO_LIST which may be not available or complete at the time of compressed mode configuration
3) The IE "Current TGPS Status Flag" is not updated after an activation of the corresponding TGPS

Summary of change: ⌘

1) - UE shall reject a compressed mode configuration when it does not need compressed mode for any supported band of the RAT or UTRA mode related to the measurement and a direction for which the CM pattern is configured

   - UE shall reject a compressed mode configuration when it needs compressed mode for all supported band of the RAT or UTRA mode related to the measurement and a direction, and the configured CM pattern does not provide that direction.

2) Reference to CELL_INFO_LIST is removed from the "DPCH Compressed mode info" consistency check procedure, and check procedure is based only on UE measurement capability and on transmission gap measurement purpose.

3) 8.6.6.15: The IE "Current TGPS Status Flag" is set to "active"

Isolated Impact Analysis

Functionality corrected: Compressed mode meaurements on inter-frequency and inter-RAT cells.

Isolated impact statement: Correction to a function where specification was missing

		procedural text. Would not affect implementations behaving like indicated in the CR, would affect implementations supporting the corrected functionality otherwise.
Consequences if not approved:	⌘	1&2)If the CR is not approved it will not be clear from the RRC specification that the UE is not required to support compressed mode for the cases that it signals in its UE capabilities that it does not need compressed mode for any band of the same RAT or UTRA mode. If the network were to attempt to activate compressed mode for a case that it is not supported by the UE then the inter-frequency or inter-RAT measurements will fail. Also it will not be completely clear under which conditions the UE is permitted to reject a compressed mode configuration. If the UE were to reject a configuration that it should be accept then the inter-frequencies or inter-RAT measurements would fail. . 3) Section 8.6.6.15 is not aligned with section 8.4.1.3. Unexpected UE behaviour for compressed may result from this when implementation follows incorrect 8.6.6.15.

Clauses affected:	⌘	8.4.1.3, 8.6.6.15			
		Y	**N**		
Other specs affected:	⌘		**X**	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

8.4.1.3 Reception of MEASUREMENT CONTROL by the UE

Upon reception of a MEASUREMENT CONTROL message the UE shall perform actions specified in subclause 8.6 unless otherwise specified below.

The UE shall:

1> read the IE "Measurement command";

1> if the IE "Measurement command" has the value "setup":

2> store this measurement in the variable MEASUREMENT_IDENTITY according to the IE "measurement identity", first releasing any previously stored measurement with that identity if that exists;

2> if the measurement type is quality, UE internal, intra-frequency, inter-frequency or inter-RAT:

3> if the UE is in CELL_FACH state:

4> the UE behaviour is not specified.

2> for measurement types "inter-RAT measurement" or "inter-frequency measurement":

3> if, according to its measurement capabilities, the UE requires compressed mode to perform that measurement type and a compressed mode pattern sequence with an appropriate measurement purpose is simultaneously activated by the IE "DPCH compressed mode status info"; or

3> if, according to its measurement capabilities, the UE does not require compressed mode to perform the measurements on at least one supported band of that measurement type:

4> if the measurement is valid in the current RRC state of the UE:

5> begin measurements according to the stored control information for this measurement identity.

NOTE : The UE is not required to perform measurements on cells for which it needs compressed mode but a suitable compressed mode pattern is not activated.

2> for measurement type "UE positioning measurement":

3> if the UE is in CELL_FACH state:

4> if IE "Positioning Method" is set to "OTDOA":

5> if IE "Method Type" is set to "UE assisted":

6> if IE "UE positioning OTDOA assistance data for UE assisted" is not included:

7> if System Information Block type 15.4 is broadcast:

8> read System Information Block type 15.4.

7> act as specified in subclause 8.6.7.19.2.

5> if IE "Method Type" is set to "UE based":

6> if IE "UE positioning OTDOA assistance data for UE based" is not included:

7> if System Information Block type 15.5 is broadcast:

8> read System Information Block type 15.5.

7> act as specified in subclause 8.6.7.19.2a.

2> for any other measurement type:

3> if the measurement is valid in the current RRC state of the UE:

4> begin measurements according to the stored control information for this measurement identity.

1> if the IE "Measurement command" has the value "modify":

2> for all IEs present in the MEASUREMENT CONTROL message:

3> if a measurement was stored in the variable MEASUREMENT_IDENTITY associated to the identity by the IE "measurement identity":

4> if the measurement type is quality, UE internal, intra-frequency, inter-frequency or inter-RAT:

5> if the UE is in CELL_FACH state:

6> the UE behaviour is not specified.

4> if measurement type is set to "intra-frequency measurement", for any of the optional IEs "Intra-frequency measurement objects list", "Intra-frequency measurement quantity", "Intra-frequency reporting quantity", "Measurement Validity", "report criteria" and "parameters required for each event" (given "report criteria" is set to "intra-frequency measurement reporting criteria") that are present in the MEASUREMENT CONTROL message:

4> if measurement type is set to "inter-frequency measurement", for any of the optional IEs "Inter-frequency measurement quantity", "Inter-frequency reporting quantity", "Measurement Validity", "Inter-frequency set update" and "parameters required for each event" (given "report criteria" is set to either "inter-frequency measurement reporting criteria" or "intra-frequency measurement reporting criteria") that are present in the MEASUREMENT CONTROL message:

4> if measurement type is set to "inter-RAT measurement", for any of the optional IEs "Inter-RAT measurement objects list", "Inter-RAT measurement quantity", "Inter-RAT reporting quantity" and "parameters required for each event" (given "report criteria" is set to "inter-RAT measurement reporting criteria") that are present in the MEASUREMENT CONTROL message:

4> if measurement type is set to "UE positioning measurement" and the IE "UE positioning OTDOA assistance data" is present, for any of the optional IEs "UE positioning OTDOA neighbour cell info for UE-assisted", "UE positioning OTDOA reference cell info for UE-assisted", "UE positioning OTDOA reference cell info for UE-based", "UE positioning OTDOA neighbour cell info for UE-based" and "UE positioning" that are present in the MEASUREMENT CONTROL message:

4> if measurement type is set to "UE positioning measurement" and the IE "UE positioning GPS assistance data" is present, for any of the optional IEs "UE positioning GPS reference time", "UE positioning GPS reference UE position", "UE positioning GPS DGPS corrections", "UE positioning GPS navigation model", "UE positioning GPS ionospheric model", "UE positioning GPS UTC model", "UE positioning GPS almanac", "UE positioning GPS acquisition assistance", "UE positioning GPS real-time integrity" that are present in the MEASUREMENT CONTROL message:

4> if measurement type is set to "traffic volume measurement", for any of the optional IEs "Traffic volume measurement Object", "Traffic volume measurement quantity", "Traffic volume reporting quantity", "Measurement Validity" and "parameters required for each event" (given "report criteria" is set to "traffic volume measurement reporting criteria") that are present in the MEASUREMENT CONTROL message:

4> if measurement type is set to "quality measurement", for any of the optional IE "Quality reporting quantity" that is present in the MEASUREMENT CONTROL message:

4> if measurement type is set to "UE internal measurement", for any of the optional IEs "UE internal measurement quantity", "UE internal reporting quantity" and "parameters required for each event" (given "report criteria" is set to "UE internal measurement reporting criteria") that are present in the MEASUREMENT CONTROL message:

5> replace the corresponding information (the IEs listed above and all their children) stored in variable MEASUREMENT_IDENTITY associated to the identity indicated by the IE "measurement identity" with the one received in the MEASUREMENT CONTROL message;

5> leave all other stored information elements unchanged in the variable MEASUREMENT_IDENTITY.

3> otherwise:

4> set the variable CONFIGURATION_INCOMPLETE to TRUE.

2> if measurement type is set to "inter-frequency measurement":

3> if "report criteria" is set to "intra-frequency report criteria" and "reporting criteria" in "inter-frequency measurement quantity" is set to "intra-frequency reporting criteria":

4> leave the currently stored "inter-frequency report criteria" within "report criteria" and "inter-frequency reporting criteria" within "inter-frequency measurement quantity" unchanged, and continue to act on the information stored in these variables, and also store the newly received "intra-frequency report criteria" and intra-frequency reporting criteria.

3> otherwise

4> clear the variables associated with the CHOICE "report criteria" and store the received "report criteria" choice;

4> if the IE "inter-frequency measurement quantity" is present:

5> clear the variables associated with the choice "reporting criteria" in "inter-frequency measurement quantity" and store the received "reporting criteria" choice.

2> for measurement types "inter-frequency measurement" that require measurements on a frequency other than the actually used frequency, or that require measurements on another RAT:

3> if, according to its measurement capabilities, the UE requires compressed mode to perform that measurement type and a compressed mode pattern sequence with an appropriate measurement purpose is simultaneously activated by the IE "DPCH compressed mode status info"; and

3> if, according to its measurement capabilities, the UE does not require compressed mode on at least one supported band of that measurement type to perform the measurements:

4> resume the measurements according to the new stored measurement control information.

2> for any other measurement type:

3> resume the measurements according to the new stored measurement control information.

1> if the IE "measurement command" has the value "release":

2> terminate the measurement associated with the identity given in the IE "measurement identity";

2> clear all stored measurement control information related associated to this measurement identity in variable MEASUREMENT_IDENTITY.

1> if the IE "DPCH Compressed Mode Status Info" is present:

2> if, as the result of this message, UE will have more than one transmission gap pattern sequence with the same measurement purpose active (according to IE 'TGMP' in variable TGPS_IDENTITY):

3> set the variable CONFIGURATION_INCOMPLETE to TRUE.

2> if pattern sequence corresponding to IE "TGPSI" is already active (according to "Current TGPS Status Flag") in the variable TGPS_IDENTITY):

3> if the "TGPS Status Flag" in this message is set to "deactivate" for the corresponding pattern sequence:

4> deactivate this pattern sequence at the beginning of the frame indicated by IE "TGPS reconfiguration CFN" received in the message;

4> set the "Current TGPS Status Flag" for this pattern sequence in the variable TGPS_IDENTITY to "inactive".

3> if the "TGPS Status Flag" in this message is set to "activate" for the corresponding pattern sequence:

4> deactivate this pattern sequence at the beginning of the frame indicated by IE "TGPS reconfiguration CFN" received in the message.

NOTE: The temporary deactivation of pattern sequences for which the status flag is set to "activate" can be used by the network to align the timing of already active patterns with newly activated patterns.

2> after the time indicated by IE "TGPS reconfiguration CFN" has elapsed:

3> activate the pattern sequence corresponding to each IE "TGPSI" for which the "TGPS status flag" in this message is set to "activate" at the time indicated by IE "TGCFN"; and

3> set the corresponding "Current TGPS status flag" for this pattern sequence in the variable TGPS_IDENTITY to "active"; and

3> begin the inter-frequency and/or inter-RAT measurements corresponding to the pattern sequence measurement purpose of each activated pattern sequence;

3> if the values of IE "TGPS reconfiguration CFN" and IE "TGCFN" are equal:

4> start the concerned pattern sequence immediately at that CFN.

2> not alter pattern sequences stored in variable TGPS_IDENTITY, if the pattern sequence is not identitifed in IE "TGPSI" in the received message.

1> if the UE in CELL_FACH state receives a MEASUREMENT CONTROL message, which indicates the same measurement identity as that stored in the variable MEASUREMENT_IDENTITY:

2> update the stored information with the traffic volume measurement control information in variable MEASUREMENT_IDENTITY; and

2> refrain from updating the traffic volume measurement control information associated with this measurement identity in the variable MEASUREMENT_IDENTITY with the information received in System Information Block type 12 (or System Information Block type 11, according to subclause 8.1.1.6.11) until this measurement is explicitly released with another MEASUREMENT CONTROL message.

1> if the IE "Read SFN indicator" included in the IE "Cell info" of an inter-frequency cell is set to TRUE and the variable UE_CAPABILITY_TRANSFERRED has the DL "Measurement capability" for "FDD measurements" set to TRUE (the UE requires DL compressed mode in order to perform measurements on FDD):

2> set the variable CONFIGURATION_INCOMPLETE to TRUE.

1> clear the entry for the MEASUREMENT CONTROL message in the table "Accepted transactions" in the variable TRANSACTIONS;

1> if the UE "Additional Measurement List" is present:

2> if the received measurement configuration in this MEASUREMENT CONTROL message, or any measurement identities in the "Additional Measurement List" do not all have the same validity:

3> set the variable CONFIGURATION_INCOMPLETE to TRUE.

The UE may:

1> if the IE "Measurement command" has the value "setup":

2> for measurement type "UE positioning measurement":

3> if the UE is CELL_FACH state:

4> if IE "Positioning Method" is set to "GPS":

5> if IE "UE positioning GPS assistance data" is not included and variable UE_POSITIONING_GPS_DATA is empty:

6> if System Information Block types 15, 15.1, 15.2 and 15.3 are broadcast:

7> read System Information Block types 15, 15.1, 15.2 and 15.3.

6> act as specified in subclause 8.6.7.19.3.

1> and the procedure ends.

8.6.6.15 DPCH Compressed mode info

If the IE "DPCH compressed mode info" is included, and if the IE group "transmission gap pattern sequence configuration parameters" is included, the UE shall for each transmission gap pattern sequence perform the following consistency checks:

1> if the UE, according to its measurement capabilities, and for all supported bands of the UTRA mode or RAT associated with the measurement purpose indicated by IE "TGMP", requires UL compressed mode ~~for measurements on any of the cells to be measured according to UE variable CELL_INFO_LIST~~, and CHOICE 'UL/DL mode' indicates 'DL only':

2> set the variable INVALID_CONFIGURATION to TRUE.

1> if UE, according to its measurement capabilities, and for all supported bands of the UTRA mode or RAT associated with the measurement purpose indicated by IE "TGMP", requires DL compressed mode ~~for measurements on any of the cells to be measured according to UE variable CELL_INFO_LIST~~, and CHOICE 'UL/DL mode' indicates 'UL only':

2> set the variable INVALID_CONFIGURATION to TRUE.

1> if the UE, according to its measurement capabilities, does not require UL compressed mode for any of supported band of the UTRA mode or RAT associated with the measurement purpose indicated by the IE "TGMP", and CHOICE 'UL/DL mode' indicates 'UL only' or 'UL and DL' :

2> set the variable INVALID_CONFIGURATION to TRUE.

1> if the UE, according to its measurement capabilities, does not require DL compressed mode for any supported band of the UTRA mode or RAT associated with the measurement purpose indicated by the IE "TGMP", and CHOICE 'UL/DL mode' indicates 'DL only' or 'UL and DL'

2> set the variable INVALID_CONFIGURATION to TRUE.

1> if UE already has an active transmission gap pattern sequence that, according to IE "TGMP", has the same measurement purpose, and both patterns will be active after the new configuration has been taken into use:

2> set the variable INVALID_CONFIGURATION to TRUE.

If variable INVALID_CONFIGURATION has value FALSE after UE has performed the checks above, the UE shall:

1> if pattern sequence corresponding to IE "TGPSI" is already active (according to "Current TGPS Status Flag") in the variable TGPS_IDENTITY):

2> if the "TGPS Status Flag" in this message is set to "deactivate" for the corresponding pattern sequence:

3> deactivate this pattern sequence at the beginning of the frame, indicated by IE "Activation time"(see subclause 8.6.3.1) received in this message, when the new configuration received in this message is taken into use.

2> if the "TGPS Status Flag" in this message is set to "activate" for the corresponding pattern sequence:

3> deactivate this pattern sequence at the beginning of the frame, indicated by IE "Activation time"(see subclause 8.6.3.1) received in this message, when the new configuration received in this message is taken into use.

NOTE: The temporary deactivation of pattern sequences for which the status flag is set to "activate" can be used by the network to align the timing of already active patterns with newly activated patterns.

1> update each pattern sequence to the variable TGPS_IDENTITY according to the IE "TGPSI";

1> update into the variable TGPS_IDENTITY the configuration information defined by IE group" transmission gap pattern sequence configuration parameters ";

1> after the new configuration has been taken into use:

2> activate the stored pattern sequence corresponding to each IE "TGPSI" for which the "Current TGPS status flag" in the variable TGPS_IDENTITY is set to "active" at the time indicated by IE "TGCFN"; and

2> begin the inter-frequency and/or inter-RAT measurements corresponding to the pattern sequence measurement purpose of each activated pattern sequence;

2> if the new configuration is taken into use at the same CFN as indicated by IE "TGCFN":

3> start the concerned pattern sequence immediately at that CFN.

1> monitor if the parallel transmission gap pattern sequences create an illegal overlap, and in case of overlap, take actions as specified in subclause 8.2.11.2.

If the IE "DPCH compressed mode info" is included, and if the IE group "transmission gap pattern sequence configuration parameters" is not included, the UE shall:

1> if pattern sequence corresponding to IE "TGPSI" is already active (according to "Current TGPS Status Flag" in the variable TGPS_IDENTITY):

2> if the "TGPS Status Flag" in this message is set to "deactivate" for the corresponding pattern sequence:

3> deactivate this pattern sequence at the beginning of the frame, indicated by IE "Activation time"(see subclause 8.6.3.1) received in this message, when the new configuration received in this message is taken into use;

3> set the "Current TGPS Status Flag" for this pattern sequence in the variable TGPS_IDENTITY to "inactive".

2> if the "TGPS Status Flag" in this message is set to "activate" for the corresponding pattern sequence:

3> deactivate this pattern sequence at the beginning of the frame, indicated by IE "Activation time"(see subclause 8.6.3.1) received in this message, when the new configuration received in this message is taken into use.

NOTE: The temporary deactivation of pattern sequences for which the status flag is set to "activate" can be used by the network to align the timing of already active patterns with newly activated patterns.

1> after the new configuration has been taken into use:

2> ~~2> activate,~~ at the time indicated by IE "TGCFN",

3> the stored pattern sequence corresponding to each IE "TGPSI" for which the "TGPS status flag" is set to "activate"; and

3> set the "Current TGPS Status Flag" for this pattern sequence in the variable TGPS_IDENTITY to 'active';

2> begin the inter-frequency and/or inter-RAT measurements corresponding to the pattern sequence measurement purpose of each activated pattern sequence;

2> if the new configuration is taken into use at the same CFN as indicated by IE "TGCFN":

3> start the concerned pattern sequence immediately at that CFN.

For transmission gap pattern sequences stored in variable TGPS_IDENTITY, but not identified in IE "TGPSI", the UE shall:

1> if the received message implies a timing re-initialised hard handover (see subclause 8.3.5.1):

2> deactivate such transmission gap pattern sequences at the beginning of the frame, indicated by IE "Activation time" (see subclause 8.6.3.1) received in this message; and

2> set IE "Current TGPS Status Flag" in corresponding UE variable TGPS_IDENTITY to 'inactive'.

1> if the received message not implies a timing re-initialised hard handover (see subclause 8.3.5.1):

2> continue such transmission gap pattern sequence according to IE "Current TGPS Status Flag" in the corresponding UE variable TGPS_IDENTITY.

Uplink and downlink compressed mode methods are described in [27]. For UL "higher layer scheduling" compressed mode method and transport format combination selection, see [15].

3GPP TSG-RAN WG2 Meeting #33
Sophia Antipolis, France, 12-15 November 2002

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CR-Form-v7

CHANGE REQUEST

⌘ **25.331** **CR** **1778** ⌘ **rev** **2** ⌘ Current version: **4.7.0** ⌘

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Proposed change affects: UICC apps⌘ [ ] ME [X] Radio Access Network [X] Core Network [ ]

Title:	⌘	Correction on support for compressed mode
Source:	⌘	Mitsubishi Electric (METE-RD), Motorola, Nortel, Siemens
Work item code:	⌘	TEI
Date:	⌘	15/11/2002
Category:	⌘	**A**
Release:	⌘	Rel-4

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
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Detailed explanations of the above categories can be found in 3GPP TR 21.900.

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R96 (Release 1996)
R97 (Release 1997)
R98 (Release 1998)
R99 (Release 1999)
Rel-4 (Release 4)
Rel-5 (Release 5)
Rel-6 (Release 6)

Reason for change: ⌘

1) It is unclear whether the UE shall support compressed mode when it does not need it. A widely spread misunderstanding was that support for compressed was not mandated when compressed mode is not needed.
2) The current "DPCH Compressed mode info" consistency check procedure is using the CELL_INFO_LIST which may be not available or complete at the time of compressed mode configuration
3) The IE "Current TGPS Status Flag" is not updated after an activation of the corresponding TGPS

Summary of change: ⌘

1) - UE shall reject a compressed mode configuration when it does not need compressed mode for any supported band of the RAT or UTRA mode related to the measurement and a direction for which the CM pattern is configured

   - UE shall reject a compressed mode configuration when it needs compressed mode for all supported band of the RAT or UTRA mode related to the measurement and a direction, and the configured CM pattern does not provide that direction.

2) Reference to CELL_INFO_LIST is removed from the "DPCH Compressed mode info" consistency check procedure, and check procedure is based only on UE measurement capability and on transmission gap measurement purpose.

3) 8.6.6.15: The IE "Current TGPS Status Flag" is set to "active"

Isolated Impact Analysis

Functionality corrected: Compressed mode meaurements on inter-frequency and inter-RAT cells.

Isolated impact statement: Correction to a function where specification was missing

		procedural text. Would not affect implementations behaving like indicated in the CR, would affect implementations supporting the corrected functionality otherwise.
Consequences if not approved:	⌘	1&2)If the CR is not approved it will not be clear from the RRC specification that the UE is not required to support compressed mode for the cases that it signals in its UE capabilities that it does not need compressed mode for any band of the same RAT or UTRA mode. If the network were to attempt to activate compressed mode for a case that it is not supported by the UE then the inter-frequency or inter-RAT measurements will fail. Also it will not be completely clear under which conditions the UE is permitted to reject a compressed mode configuration. If the UE were to reject a configuration that it should be accept then the inter-frequencies or inter-RAT measurements would fail. . 3) Section 8.6.6.15 is not aligned with section 8.4.1.3. Unexpected UE behaviour for compressed may result from this when implementation follows incorrect 8.6.6.15.

Clauses affected:	⌘	8.4.1.3, 8.6.6.15			
		Y	**N**		
Other specs affected:	⌘		**X**	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

8.4.1.3 Reception of MEASUREMENT CONTROL by the UE

Upon reception of a MEASUREMENT CONTROL message the UE shall perform actions specified in subclause 8.6 unless otherwise specified below.

The UE shall:

1> read the IE "Measurement command";

1> if the IE "Measurement command" has the value "setup":

2> store this measurement in the variable MEASUREMENT_IDENTITY according to the IE "measurement identity", first releasing any previously stored measurement with that identity if that exists;

2> if the measurement type is quality, UE internal, intra-frequency, inter-frequency or inter-RAT:

3> if the UE is in CELL_FACH state:

4> the UE behaviour is not specified.

2> for measurement types "inter-RAT measurement" or "inter-frequency measurement":

3> if, according to its measurement capabilities, the UE requires compressed mode to perform that measurement type and a compressed mode pattern sequence with an appropriate measurement purpose is simultaneously activated by the IE "DPCH compressed mode status info"; or

3> if, according to its measurement capabilities, the UE does not require compressed mode to perform the measurements on at least one supported band of that measurement type:

4> if the measurement is valid in the current RRC state of the UE:

5> begin measurements according to the stored control information for this measurement identity.

NOTE : The UE is not required to perform measurements on cells for which it needs compressed mode but a suitable compressed mode pattern is not activated.

2> for measurement type "UE positioning measurement":

3> if the UE is in CELL_FACH state:

4> if IE "Positioning Method" is set to "OTDOA":

5> if IE "Method Type" is set to "UE assisted":

6> if IE "UE positioning OTDOA assistance data for UE assisted" is not included:

7> if System Information Block type 15.4 is broadcast:

8> read System Information Block type 15.4.

7> act as specified in subclause 8.6.7.19.2.

5> if IE "Method Type" is set to "UE based":

6> if IE "UE positioning OTDOA assistance data for UE based" is not included:

7> if System Information Block type 15.5 is broadcast:

8> read System Information Block type 15.5.

7> act as specified in subclause 8.6.7.19.2a.

2> for any other measurement type:

3> if the measurement is valid in the current RRC state of the UE:

4> begin measurements according to the stored control information for this measurement identity.

1> if the IE "Measurement command" has the value "modify":

2> for all IEs present in the MEASUREMENT CONTROL message:

3> if a measurement was stored in the variable MEASUREMENT_IDENTITY associated to the identity by the IE "measurement identity":

4> if the measurement type is quality, UE internal, intra-frequency, inter-frequency or inter-RAT:

5> if the UE is in CELL_FACH state:

6> the UE behaviour is not specified.

4> if measurement type is set to "intra-frequency measurement", for any of the optional IEs "Intra-frequency measurement objects list", "Intra-frequency measurement quantity", "Intra-frequency reporting quantity", "Measurement Validity", "report criteria" and "parameters required for each event" (given "report criteria" is set to "intra-frequency measurement reporting criteria") that are present in the MEASUREMENT CONTROL message:

4> if measurement type is set to "inter-frequency measurement", for any of the optional IEs "Inter-frequency measurement quantity", "Inter-frequency reporting quantity", "Measurement Validity", "Inter-frequency set update" and "parameters required for each event" (given "report criteria" is set to either "inter-frequency measurement reporting criteria" or "intra-frequency measurement reporting criteria") that are present in the MEASUREMENT CONTROL message:

4> if measurement type is set to "inter-RAT measurement", for any of the optional IEs "Inter-RAT measurement objects list", "Inter-RAT measurement quantity", "Inter-RAT reporting quantity" and "parameters required for each event" (given "report criteria" is set to "inter-RAT measurement reporting criteria") that are present in the MEASUREMENT CONTROL message:

4> if measurement type is set to "UE positioning measurement" and the IE "UE positioning OTDOA assistance data" is present, for any of the optional IEs "UE positioning OTDOA neighbour cell info for UE-assisted", "UE positioning OTDOA reference cell info for UE-assisted", "UE positioning OTDOA reference cell info for UE-based", "UE positioning OTDOA neighbour cell info for UE-based" and "UE positioning" that are present in the MEASUREMENT CONTROL message:

4> if measurement type is set to "UE positioning measurement" and the IE "UE positioning GPS assistance data" is present, for any of the optional IEs "UE positioning GPS reference time", "UE positioning GPS reference UE position", "UE positioning GPS DGPS corrections", "UE positioning GPS navigation model", "UE positioning GPS ionospheric model", "UE positioning GPS UTC model", "UE positioning GPS almanac", "UE positioning GPS acquisition assistance", "UE positioning GPS real-time integrity" that are present in the MEASUREMENT CONTROL message:

4> if measurement type is set to "traffic volume measurement", for any of the optional IEs "Traffic volume measurement Object", "Traffic volume measurement quantity", "Traffic volume reporting quantity", "Measurement Validity" and "parameters required for each event" (given "report criteria" is set to "traffic volume measurement reporting criteria") that are present in the MEASUREMENT CONTROL message:

4> if measurement type is set to "quality measurement", for any of the optional IE "Quality reporting quantity" that is present in the MEASUREMENT CONTROL message:

4> if measurement type is set to "UE internal measurement", for any of the optional IEs "UE internal measurement quantity", "UE internal reporting quantity" and "parameters required for each event" (given "report criteria" is set to "UE internal measurement reporting criteria") that are present in the MEASUREMENT CONTROL message:

5> replace the corresponding information (the IEs listed above and all their children) stored in variable MEASUREMENT_IDENTITY associated to the identity indicated by the IE "measurement identity" with the one received in the MEASUREMENT CONTROL message;

5> leave all other stored information elements unchanged in the variable MEASUREMENT_IDENTITY.

3> otherwise:

4> set the variable CONFIGURATION_INCOMPLETE to TRUE.

2> if measurement type is set to "inter-frequency measurement":

3> if "report criteria" is set to "intra-frequency report criteria" and "reporting criteria" in "inter-frequency measurement quantity" is set to "intra-frequency reporting criteria":

4> leave the currently stored "inter-frequency report criteria" within "report criteria" and "inter-frequency reporting criteria" within "inter-frequency measurement quantity" unchanged, and continue to act on the information stored in these variables, and also store the newly received "intra-frequency report criteria" and intra-frequency reporting criteria.

3> otherwise

4> clear the variables associated with the CHOICE "report criteria" and store the received "report criteria" choice;

4> if the IE "inter-frequency measurement quantity" is present:

5> clear the variables associated with the choice "reporting criteria" in "inter-frequency measurement quantity" and store the received "reporting criteria" choice.

2> for measurement types "inter-frequency measurement" that require measurements on a frequency other than the actually used frequency, or that require measurements on another RAT:

3> if, according to its measurement capabilities, the UE requires compressed mode to perform that measurement type and a compressed mode pattern sequence with an appropriate measurement purpose is simultaneously activated by the IE "DPCH compressed mode status info"; and

3> if, according to its measurement capabilities, the UE does not require compressed mode on at least one supported band of that measurement type to perform the measurements:

4> resume the measurements according to the new stored measurement control information.

2> for any other measurement type:

3> resume the measurements according to the new stored measurement control information.

1> if the IE "measurement command" has the value "release":

2> terminate the measurement associated with the identity given in the IE "measurement identity";

2> clear all stored measurement control information related associated to this measurement identity in variable MEASUREMENT_IDENTITY.

1> if the IE "DPCH Compressed Mode Status Info" is present:

2> if, as the result of this message, UE will have more than one transmission gap pattern sequence with the same measurement purpose active (according to IE 'TGMP' in variable TGPS_IDENTITY):

3> set the variable CONFIGURATION_INCOMPLETE to TRUE.

2> if pattern sequence corresponding to IE "TGPSI" is already active (according to "Current TGPS Status Flag") in the variable TGPS_IDENTITY):

3> if the "TGPS Status Flag" in this message is set to "deactivate" for the corresponding pattern sequence:

4> deactivate this pattern sequence at the beginning of the frame indicated by IE "TGPS reconfiguration CFN" received in the message;

4> set the "Current TGPS Status Flag" for this pattern sequence in the variable TGPS_IDENTITY to "inactive".

3> if the "TGPS Status Flag" in this message is set to "activate" for the corresponding pattern sequence:

4> deactivate this pattern sequence at the beginning of the frame indicated by IE "TGPS reconfiguration CFN" received in the message.

NOTE: The temporary deactivation of pattern sequences for which the status flag is set to "activate" can be used by the network to align the timing of already active patterns with newly activated patterns.

2> after the time indicated by IE "TGPS reconfiguration CFN" has elapsed:

3> activate the pattern sequence corresponding to each IE "TGPSI" for which the "TGPS status flag" in this message is set to "activate" at the time indicated by IE "TGCFN"; and

3> set the corresponding "Current TGPS status flag" for this pattern sequence in the variable TGPS_IDENTITY to "active"; and

3> begin the inter-frequency and/or inter-RAT measurements corresponding to the pattern sequence measurement purpose of each activated pattern sequence;

3> if the values of IE "TGPS reconfiguration CFN" and IE "TGCFN" are equal:

4> start the concerned pattern sequence immediately at that CFN.

2> not alter pattern sequences stored in variable TGPS_IDENTITY, if the pattern sequence is not identitifed in IE "TGPSI" in the received message.

1> if the UE in CELL_FACH state receives a MEASUREMENT CONTROL message, which indicates the same measurement identity as that stored in the variable MEASUREMENT_IDENTITY:

2> update the stored information with the traffic volume measurement control information in variable MEASUREMENT_IDENTITY; and

2> refrain from updating the traffic volume measurement control information associated with this measurement identity in the variable MEASUREMENT_IDENTITY with the information received in System Information Block type 12 (or System Information Block type 11, according to subclause 8.1.1.6.11) until this measurement is explicitly released with another MEASUREMENT CONTROL message.

1> if the IE "Read SFN indicator" included in the IE "Cell info" of an inter-frequency cell is set to TRUE and the variable UE_CAPABILITY_TRANSFERRED has the DL "Measurement capability" for "FDD measurements" set to TRUE (the UE requires DL compressed mode in order to perform measurements on FDD):

2> set the variable CONFIGURATION_INCOMPLETE to TRUE.

1> clear the entry for the MEASUREMENT CONTROL message in the table "Accepted transactions" in the variable TRANSACTIONS;

1> if the UE "Additional Measurement List" is present:

2> if the received measurement configuration in this MEASUREMENT CONTROL message, or any measurement identities in the "Additional Measurement List" do not all have the same validity:

3> set the variable CONFIGURATION_INCOMPLETE to TRUE.

The UE may:

1> if the IE "Measurement command" has the value "setup":

2> for measurement type "UE positioning measurement":

3> if the UE is CELL_FACH state:

4> if IE "Positioning Method" is set to "GPS":

5> if IE "UE positioning GPS assistance data" is not included and variable UE_POSITIONING_GPS_DATA is empty:

6> if System Information Block types 15, 15.1, 15.2 and 15.3 are broadcast:

7> read System Information Block types 15, 15.1, 15.2 and 15.3.

6> act as specified in subclause 8.6.7.19.3.

1> and the procedure ends.

8.6.6.15 DPCH Compressed mode info

If the IE "DPCH compressed mode info" is included, and if the IE group "transmission gap pattern sequence configuration parameters" is included, the UE shall for each transmission gap pattern sequence perform the following consistency checks:

1> if the UE, according to its measurement capabilities, and for all supported bands of the UTRA mode or RAT associated with the measurement purpose indicated by IE "TGMP", requires UL compressed mode ~~for measurements on any of the cells to be measured according to UE variable CELL_INFO_LIST~~, and CHOICE 'UL/DL mode' indicates 'DL only':

2> set the variable INVALID_CONFIGURATION to TRUE.

1> if UE, according to its measurement capabilities, and for all supported bands of the UTRA mode or RAT associated with the measurement purpose indicated by IE "TGMP", requires DL compressed mode ~~for measurements on any of the cells to be measured according to UE variable CELL_INFO_LIST~~, and CHOICE 'UL/DL mode' indicates 'UL only':

2> set the variable INVALID_CONFIGURATION to TRUE.

1> if the UE, according to its measurement capabilities, does not require UL compressed mode for any of supported band of the UTRA mode or RAT associated with the measurement purpose indicated by the IE "TGMP", and CHOICE 'UL/DL mode' indicates 'UL only' or 'UL and DL' :

2> set the variable INVALID_CONFIGURATION to TRUE.

1> if the UE, according to its measurement capabilities, does not require DL compressed mode for any supported band of the UTRA mode or RAT associated with the measurement purpose indicated by the IE "TGMP", and CHOICE 'UL/DL mode' indicates 'DL only' or 'UL and DL'

2> set the variable INVALID_CONFIGURATION to TRUE.

1> if UE already has an active transmission gap pattern sequence that, according to IE "TGMP", has the same measurement purpose, and both patterns will be active after the new configuration has been taken into use:

2> set the variable INVALID_CONFIGURATION to TRUE.

If variable INVALID_CONFIGURATION has value FALSE after UE has performed the checks above, the UE shall:

1> if pattern sequence corresponding to IE "TGPSI" is already active (according to "Current TGPS Status Flag") in the variable TGPS_IDENTITY):

2> if the "TGPS Status Flag" in this message is set to "deactivate" for the corresponding pattern sequence:

3> deactivate this pattern sequence at the beginning of the frame, indicated by IE "Activation time"(see subclause 8.6.3.1) received in this message, when the new configuration received in this message is taken into use.

2> if the "TGPS Status Flag" in this message is set to "activate" for the corresponding pattern sequence:

3> deactivate this pattern sequence at the beginning of the frame, indicated by IE "Activation time"(see subclause 8.6.3.1) received in this message, when the new configuration received in this message is taken into use.

NOTE: The temporary deactivation of pattern sequences for which the status flag is set to "activate" can be used by the network to align the timing of already active patterns with newly activated patterns.

1> update each pattern sequence to the variable TGPS_IDENTITY according to the IE "TGPSI";

1> update into the variable TGPS_IDENTITY the configuration information defined by IE group" transmission gap pattern sequence configuration parameters ";

1> after the new configuration has been taken into use:

2> activate the stored pattern sequence corresponding to each IE "TGPSI" for which the "Current TGPS status flag" in the variable TGPS_IDENTITY is set to "active" at the time indicated by IE "TGCFN"; and

2> begin the inter-frequency and/or inter-RAT measurements corresponding to the pattern sequence measurement purpose of each activated pattern sequence;

2> if the new configuration is taken into use at the same CFN as indicated by IE "TGCFN":

3> start the concerned pattern sequence immediately at that CFN.

1> monitor if the parallel transmission gap pattern sequences create an illegal overlap, and in case of overlap, take actions as specified in subclause 8.2.11.2.

If the IE "DPCH compressed mode info" is included, and if the IE group "transmission gap pattern sequence configuration parameters" is not included, the UE shall:

1> if pattern sequence corresponding to IE "TGPSI" is already active (according to "Current TGPS Status Flag" in the variable TGPS_IDENTITY):

2> if the "TGPS Status Flag" in this message is set to "deactivate" for the corresponding pattern sequence:

3> deactivate this pattern sequence at the beginning of the frame, indicated by IE "Activation time"(see subclause 8.6.3.1) received in this message, when the new configuration received in this message is taken into use;

3> set the "Current TGPS Status Flag" for this pattern sequence in the variable TGPS_IDENTITY to "inactive".

2> if the "TGPS Status Flag" in this message is set to "activate" for the corresponding pattern sequence:

3> deactivate this pattern sequence at the beginning of the frame, indicated by IE "Activation time"(see subclause 8.6.3.1) received in this message, when the new configuration received in this message is taken into use.

NOTE: The temporary deactivation of pattern sequences for which the status flag is set to "activate" can be used by the network to align the timing of already active patterns with newly activated patterns.

1> after the new configuration has been taken into use:

2> ~~2> activate,~~ at the time indicated by IE "TGCFN",

3> the stored pattern sequence corresponding to each IE "TGPSI" for which the "TGPS status flag" is set to "activate"; and

3> set the "Current TGPS Status Flag" for this pattern sequence in the variable TGPS_IDENTITY to 'active';

2> begin the inter-frequency and/or inter-RAT measurements corresponding to the pattern sequence measurement purpose of each activated pattern sequence;

2> if the new configuration is taken into use at the same CFN as indicated by IE "TGCFN":

3> start the concerned pattern sequence immediately at that CFN.

For transmission gap pattern sequences stored in variable TGPS_IDENTITY, but not identified in IE "TGPSI", the UE shall:

1> if the received message implies a timing re-initialised hard handover (see subclause 8.3.5.1):

2> deactivate such transmission gap pattern sequences at the beginning of the frame, indicated by IE "Activation time" (see subclause 8.6.3.1) received in this message; and

2> set IE "Current TGPS Status Flag" in corresponding UE variable TGPS_IDENTITY to 'inactive'.

1> if the received message not implies a timing re-initialised hard handover (see subclause 8.3.5.1):

2> continue such transmission gap pattern sequence according to IE "Current TGPS Status Flag" in the corresponding UE variable TGPS_IDENTITY.

Uplink and downlink compressed mode methods are described in [27]. For UL "higher layer scheduling" compressed mode method and transport format combination selection, see [15].

3GPP TSG-RAN WG2 Meeting #33
Sophia Antipolis, France, 12-15 November 2002

Tdoc ⌘ R2-023252

CR-Form-v7

CHANGE REQUEST

⌘ **25.331** **CR** **1779** ⌘ **rev** **2** ⌘ Current version: **5.2.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ [ ] ME [X] Radio Access Network [X] Core Network [ ]

Title:	⌘	Correction on support for compressed mode
Source:	⌘	Mitsubishi Electric (METE-RD), Motorola, Nortel, Siemens
Work item code:	⌘	TEI
Date:	⌘	15/11/2002
Category:	⌘	**A**
Release:	⌘	Rel-5

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:
2 (GSM Phase 2)
R96 (Release 1996)
R97 (Release 1997)
R98 (Release 1998)
R99 (Release 1999)
Rel-4 (Release 4)
Rel-5 (Release 5)
Rel-6 (Release 6)

Reason for change: ⌘

1) It is unclear whether the UE shall support compressed mode when it does not need it. A widely spread misunderstanding was that support for compressed was not mandated when compressed mode is not needed.
2) The current "DPCH Compressed mode info" consistency check procedure is using the CELL_INFO_LIST which may be not available or complete at the time of compressed mode configuration
3) The IE "Current TGPS Status Flag" is not updated after an activation of the corresponding TGPS

Summary of change: ⌘

1) - UE shall reject a compressed mode configuration when it does not need compressed mode for any supported band of the RAT or UTRA mode related to the measurement and a direction for which the CM pattern is configured

   - UE shall reject a compressed mode configuration when it needs compressed mode for all supported band of the RAT or UTRA mode related to the measurement and a direction, and the configured CM pattern does not provide that direction.

2) Reference to CELL_INFO_LIST is removed from the "DPCH Compressed mode info" consistency check procedure, and check procedure is based only on UE measurement capability and on transmission gap measurement purpose.

3) 8.6.6.15: The IE "Current TGPS Status Flag" is set to "active"

Isolated Impact Analysis

Functionality corrected: Compressed mode meaurements on inter-frequency and inter-RAT cells.

Isolated impact statement: Correction to a function where specification was missing

		procedural text. Would not affect implementations behaving like indicated in the CR, would affect implementations supporting the corrected functionality otherwise.
Consequences if not approved:	⌘	1&2)If the CR is not approved it will not be clear from the RRC specification that the UE is not required to support compressed mode for the cases that it signals in its UE capabilities that it does not need compressed mode for any band of the same RAT or UTRA mode. If the network were to attempt to activate compressed mode for a case that it is not supported by the UE then the inter-frequency or inter-RAT measurements will fail. Also it will not be completely clear under which conditions the UE is permitted to reject a compressed mode configuration. If the UE were to reject a configuration that it should be accept then the inter-frequencies or inter-RAT measurements would fail. . 3) Section 8.6.6.15 is not aligned with section 8.4.1.3. Unexpected UE behaviour for compressed may result from this when implementation follows incorrect 8.6.6.15.

Clauses affected:	⌘	8.4.1.3, 8.6.6.15			
		Y	**N**		
Other specs affected:	⌘		**X**	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

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3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

8.4.1.3 Reception of MEASUREMENT CONTROL by the UE

Upon reception of a MEASUREMENT CONTROL message the UE shall perform actions specified in subclause 8.6 unless otherwise specified below.

The UE shall:

1> read the IE "Measurement command";

1> if the IE "Measurement command" has the value "setup":

2> store this measurement in the variable MEASUREMENT_IDENTITY according to the IE "measurement identity", first releasing any previously stored measurement with that identity if that exists;

2> if the measurement type is quality, UE internal, intra-frequency, inter-frequency or inter-RAT:

3> if the UE is in CELL_FACH state:

4> the UE behaviour is not specified.

2> for measurement types "inter-RAT measurement" or "inter-frequency measurement":

3> if, according to its measurement capabilities, the UE requires compressed mode to perform that measurement type and a compressed mode pattern sequence with an appropriate measurement purpose is simultaneously activated by the IE "DPCH compressed mode status info"; or

3> if, according to its measurement capabilities, the UE does not require compressed mode to perform the measurements on at least one supported band of that measurement type:

4> if the measurement is valid in the current RRC state of the UE:

5> begin measurements according to the stored control information for this measurement identity.

NOTE : The UE is not required to perform measurements on cells for which it needs compressed mode but a suitable compressed mode pattern is not activated.

2> for measurement type "UE positioning measurement":

3> if the UE is in CELL_FACH state:

4> if IE "Positioning Method" is set to "OTDOA":

5> if IE "Method Type" is set to "UE assisted":

6> if IE "UE positioning OTDOA assistance data for UE assisted" is not included:

7> if System Information Block type 15.4 is broadcast:

8> read System Information Block type 15.4.

7> act as specified in subclause 8.6.7.19.2.

5> if IE "Method Type" is set to "UE based":

6> if IE "UE positioning OTDOA assistance data for UE based" is not included:

7> if System Information Block type 15.5 is broadcast:

8> read System Information Block type 15.5.

7> act as specified in subclause 8.6.7.19.2a.

2> for any other measurement type:

3> if the measurement is valid in the current RRC state of the UE:

4> begin measurements according to the stored control information for this measurement identity.

1> if the IE "Measurement command" has the value "modify":

2> for all IEs present in the MEASUREMENT CONTROL message:

3> if a measurement was stored in the variable MEASUREMENT_IDENTITY associated to the identity by the IE "measurement identity":

4> if the measurement type is quality, UE internal, intra-frequency, inter-frequency or inter-RAT:

5> if the UE is in CELL_FACH state:

6> the UE behaviour is not specified.

4> if measurement type is set to "intra-frequency measurement", for any of the optional IEs "Intra-frequency measurement objects list", "Intra-frequency measurement quantity", "Intra-frequency reporting quantity", "Measurement Validity", "report criteria" and "parameters required for each event" (given "report criteria" is set to "intra-frequency measurement reporting criteria") that are present in the MEASUREMENT CONTROL message:

4> if measurement type is set to "inter-frequency measurement", for any of the optional IEs "Inter-frequency measurement quantity", "Inter-frequency reporting quantity", "Measurement Validity", "Inter-frequency set update" and "parameters required for each event" (given "report criteria" is set to either "inter-frequency measurement reporting criteria" or "intra-frequency measurement reporting criteria") that are present in the MEASUREMENT CONTROL message:

4> if measurement type is set to "inter-RAT measurement", for any of the optional IEs "Inter-RAT measurement objects list", "Inter-RAT measurement quantity", "Inter-RAT reporting quantity" and "parameters required for each event" (given "report criteria" is set to "inter-RAT measurement reporting criteria") that are present in the MEASUREMENT CONTROL message:

4> if measurement type is set to "UE positioning measurement" and the IE "UE positioning OTDOA assistance data" is present, for any of the optional IEs "UE positioning OTDOA neighbour cell info for UE-assisted", "UE positioning OTDOA reference cell info for UE-assisted", "UE positioning OTDOA reference cell info for UE-based", "UE positioning OTDOA neighbour cell info for UE-based" and "UE positioning" that are present in the MEASUREMENT CONTROL message:

4> if measurement type is set to "UE positioning measurement" and the IE "UE positioning GPS assistance data" is present, for any of the optional IEs "UE positioning GPS reference time", "UE positioning GPS reference UE position", "UE positioning GPS DGPS corrections", "UE positioning GPS navigation model", "UE positioning GPS ionospheric model", "UE positioning GPS UTC model", "UE positioning GPS almanac", "UE positioning GPS acquisition assistance", "UE positioning GPS real-time integrity" that are present in the MEASUREMENT CONTROL message:

4> if measurement type is set to "traffic volume measurement", for any of the optional IEs "Traffic volume measurement Object", "Traffic volume measurement quantity", "Traffic volume reporting quantity", "Measurement Validity" and "parameters required for each event" (given "report criteria" is set to "traffic volume measurement reporting criteria") that are present in the MEASUREMENT CONTROL message:

4> if measurement type is set to "quality measurement", for any of the optional IE "Quality reporting quantity" that is present in the MEASUREMENT CONTROL message:

4> if measurement type is set to "UE internal measurement", for any of the optional IEs "UE internal measurement quantity", "UE internal reporting quantity" and "parameters required for each event" (given "report criteria" is set to "UE internal measurement reporting criteria") that are present in the MEASUREMENT CONTROL message:

5> replace the corresponding information (the IEs listed above and all their children) stored in variable MEASUREMENT_IDENTITY associated to the identity indicated by the IE "measurement identity" with the one received in the MEASUREMENT CONTROL message;

5> leave all other stored information elements unchanged in the variable MEASUREMENT_IDENTITY.

3> otherwise:

4> set the variable CONFIGURATION_INCOMPLETE to TRUE.

2> if measurement type is set to "inter-frequency measurement":

3> if "report criteria" is set to "intra-frequency report criteria" and "reporting criteria" in "inter-frequency measurement quantity" is set to "intra-frequency reporting criteria":

4> leave the currently stored "inter-frequency report criteria" within "report criteria" and "inter-frequency reporting criteria" within "inter-frequency measurement quantity" unchanged, and continue to act on the information stored in these variables, and also store the newly received "intra-frequency report criteria" and intra-frequency reporting criteria.

3> otherwise

4> clear the variables associated with the CHOICE "report criteria" and store the received "report criteria" choice;

4> if the IE "inter-frequency measurement quantity" is present:

5> clear the variables associated with the choice "reporting criteria" in "inter-frequency measurement quantity" and store the received "reporting criteria" choice.

2> for measurement types "inter-frequency measurement" that require measurements on a frequency other than the actually used frequency, or that require measurements on another RAT:

3> if, according to its measurement capabilities, the UE requires compressed mode to perform that measurement type and a compressed mode pattern sequence with an appropriate measurement purpose is simultaneously activated by the IE "DPCH compressed mode status info"; and

3> if, according to its measurement capabilities, the UE does not require compressed mode on at least one supported band of that measurement type to perform the measurements:

4> resume the measurements according to the new stored measurement control information.

2> for any other measurement type:

3> resume the measurements according to the new stored measurement control information.

1> if the IE "measurement command" has the value "release":

2> terminate the measurement associated with the identity given in the IE "measurement identity";

2> clear all stored measurement control information related associated to this measurement identity in variable MEASUREMENT_IDENTITY.

1> if the IE "DPCH Compressed Mode Status Info" is present:

2> if, as the result of this message, UE will have more than one transmission gap pattern sequence with the same measurement purpose active (according to IE 'TGMP' in variable TGPS_IDENTITY):

3> set the variable CONFIGURATION_INCOMPLETE to TRUE.

2> if pattern sequence corresponding to IE "TGPSI" is already active (according to "Current TGPS Status Flag") in the variable TGPS_IDENTITY):

3> if the "TGPS Status Flag" in this message is set to "deactivate" for the corresponding pattern sequence:

4> deactivate this pattern sequence at the beginning of the frame indicated by IE "TGPS reconfiguration CFN" received in the message;

4> set the "Current TGPS Status Flag" for this pattern sequence in the variable TGPS_IDENTITY to "inactive".

3> if the "TGPS Status Flag" in this message is set to "activate" for the corresponding pattern sequence:

4> deactivate this pattern sequence at the beginning of the frame indicated by IE "TGPS reconfiguration CFN" received in the message.

NOTE: The temporary deactivation of pattern sequences for which the status flag is set to "activate" can be used by the network to align the timing of already active patterns with newly activated patterns.

2> after the time indicated by IE "TGPS reconfiguration CFN" has elapsed:

3> activate the pattern sequence corresponding to each IE "TGPSI" for which the "TGPS status flag" in this message is set to "activate" at the time indicated by IE "TGCFN"; and

3> set the corresponding "Current TGPS status flag" for this pattern sequence in the variable TGPS_IDENTITY to "active"; and

3> begin the inter-frequency and/or inter-RAT measurements corresponding to the pattern sequence measurement purpose of each activated pattern sequence;

3> if the values of IE "TGPS reconfiguration CFN" and IE "TGCFN" are equal:

4> start the concerned pattern sequence immediately at that CFN.

2> not alter pattern sequences stored in variable TGPS_IDENTITY, if the pattern sequence is not identitifed in IE "TGPSI" in the received message.

1> if the UE in CELL_FACH state receives a MEASUREMENT CONTROL message, which indicates the same measurement identity as that stored in the variable MEASUREMENT_IDENTITY:

2> update the stored information with the traffic volume measurement control information in variable MEASUREMENT_IDENTITY; and

2> refrain from updating the traffic volume measurement control information associated with this measurement identity in the variable MEASUREMENT_IDENTITY with the information received in System Information Block type 12 (or System Information Block type 11, according to subclause 8.1.1.6.11) until this measurement is explicitly released with another MEASUREMENT CONTROL message.

1> if the IE "Read SFN indicator" included in the IE "Cell info" of an inter-frequency cell is set to TRUE and the variable UE_CAPABILITY_TRANSFERRED has the DL "Measurement capability" for "FDD measurements" set to TRUE (the UE requires DL compressed mode in order to perform measurements on FDD):

2> set the variable CONFIGURATION_INCOMPLETE to TRUE.

1> clear the entry for the MEASUREMENT CONTROL message in the table "Accepted transactions" in the variable TRANSACTIONS;

1> if the UE "Additional Measurement List" is present:

2> if the received measurement configuration in this MEASUREMENT CONTROL message, or any measurement identities in the "Additional Measurement List" do not all have the same validity:

3> set the variable CONFIGURATION_INCOMPLETE to TRUE.

The UE may:

1> if the IE "Measurement command" has the value "setup":

2> for measurement type "UE positioning measurement":

3> if the UE is CELL_FACH state:

4> if IE "Positioning Method" is set to "GPS":

5> if IE "UE positioning GPS assistance data" is not included and variable UE_POSITIONING_GPS_DATA is empty:

6> if System Information Block types 15, 15.1, 15.2 and 15.3 are broadcast:

7> read System Information Block types 15, 15.1, 15.2 and 15.3.

6> act as specified in subclause 8.6.7.19.3.

1> and the procedure ends.

8.6.6.15 DPCH Compressed mode info

If the IE "DPCH compressed mode info" is included, and if the IE group "transmission gap pattern sequence configuration parameters" is included, the UE shall for each transmission gap pattern sequence perform the following consistency checks:

1> if the UE, according to its measurement capabilities, and for all supported bands of the UTRA mode or RAT associated with the measurement purpose indicated by IE "TGMP", requires UL compressed mode ~~for measurements on any of the cells to be measured according to UE variable CELL_INFO_LIST~~, and CHOICE 'UL/DL mode' indicates 'DL only':

2> set the variable INVALID_CONFIGURATION to TRUE.

1> if UE, according to its measurement capabilities, and for all supported bands of the UTRA mode or RAT associated with the measurement purpose indicated by IE "TGMP", requires DL compressed mode ~~for measurements on any of the cells to be measured according to UE variable CELL_INFO_LIST~~, and CHOICE 'UL/DL mode' indicates 'UL only':

2> set the variable INVALID_CONFIGURATION to TRUE.

1> if the UE, according to its measurement capabilities, does not require UL compressed mode for any of supported band of the UTRA mode or RAT associated with the measurement purpose indicated by the IE "TGMP", and CHOICE 'UL/DL mode' indicates 'UL only' or 'UL and DL' :

2> set the variable INVALID_CONFIGURATION to TRUE.

1> if the UE, according to its measurement capabilities, does not require DL compressed mode for any supported band of the UTRA mode or RAT associated with the measurement purpose indicated by the IE "TGMP", and CHOICE 'UL/DL mode' indicates 'DL only' or 'UL and DL'

2> set the variable INVALID_CONFIGURATION to TRUE.

1> if UE already has an active transmission gap pattern sequence that, according to IE "TGMP", has the same measurement purpose, and both patterns will be active after the new configuration has been taken into use:

2> set the variable INVALID_CONFIGURATION to TRUE.

If variable INVALID_CONFIGURATION has value FALSE after UE has performed the checks above, the UE shall:

1> if pattern sequence corresponding to IE "TGPSI" is already active (according to "Current TGPS Status Flag") in the variable TGPS_IDENTITY):

2> if the "TGPS Status Flag" in this message is set to "deactivate" for the corresponding pattern sequence:

3> deactivate this pattern sequence at the beginning of the frame, indicated by IE "Activation time"(see subclause 8.6.3.1) received in this message, when the new configuration received in this message is taken into use.

2> if the "TGPS Status Flag" in this message is set to "activate" for the corresponding pattern sequence:

3> deactivate this pattern sequence at the beginning of the frame, indicated by IE "Activation time"(see subclause 8.6.3.1) received in this message, when the new configuration received in this message is taken into use.

NOTE: The temporary deactivation of pattern sequences for which the status flag is set to "activate" can be used by the network to align the timing of already active patterns with newly activated patterns.

1> update each pattern sequence to the variable TGPS_IDENTITY according to the IE "TGPSI";

1> update into the variable TGPS_IDENTITY the configuration information defined by IE group" transmission gap pattern sequence configuration parameters ";

1> after the new configuration has been taken into use:

2> activate the stored pattern sequence corresponding to each IE "TGPSI" for which the "Current TGPS status flag" in the variable TGPS_IDENTITY is set to "active" at the time indicated by IE "TGCFN"; and

2> begin the inter-frequency and/or inter-RAT measurements corresponding to the pattern sequence measurement purpose of each activated pattern sequence;

2> if the new configuration is taken into use at the same CFN as indicated by IE "TGCFN":

3> start the concerned pattern sequence immediately at that CFN.

1> monitor if the parallel transmission gap pattern sequences create an illegal overlap, and in case of overlap, take actions as specified in subclause 8.2.11.2.

If the IE "DPCH compressed mode info" is included, and if the IE group "transmission gap pattern sequence configuration parameters" is not included, the UE shall:

1> if pattern sequence corresponding to IE "TGPSI" is already active (according to "Current TGPS Status Flag" in the variable TGPS_IDENTITY):

2> if the "TGPS Status Flag" in this message is set to "deactivate" for the corresponding pattern sequence:

3> deactivate this pattern sequence at the beginning of the frame, indicated by IE "Activation time"(see subclause 8.6.3.1) received in this message, when the new configuration received in this message is taken into use;

3> set the "Current TGPS Status Flag" for this pattern sequence in the variable TGPS_IDENTITY to "inactive".

2> if the "TGPS Status Flag" in this message is set to "activate" for the corresponding pattern sequence:

3> deactivate this pattern sequence at the beginning of the frame, indicated by IE "Activation time"(see subclause 8.6.3.1) received in this message, when the new configuration received in this message is taken into use.

NOTE: The temporary deactivation of pattern sequences for which the status flag is set to "activate" can be used by the network to align the timing of already active patterns with newly activated patterns.

1> after the new configuration has been taken into use:

2> ~~2> activate,~~ at the time indicated by IE "TGCFN",

3> the stored pattern sequence corresponding to each IE "TGPSI" for which the "TGPS status flag" is set to "activate"; and

3> set the "Current TGPS Status Flag" for this pattern sequence in the variable TGPS_IDENTITY to 'active';

2> begin the inter-frequency and/or inter-RAT measurements corresponding to the pattern sequence measurement purpose of each activated pattern sequence;

2> if the new configuration is taken into use at the same CFN as indicated by IE "TGCFN":

3> start the concerned pattern sequence immediately at that CFN.

For transmission gap pattern sequences stored in variable TGPS_IDENTITY, but not identified in IE "TGPSI", the UE shall:

1> if the received message implies a timing re-initialised hard handover (see subclause 8.3.5.1):

2> deactivate such transmission gap pattern sequences at the beginning of the frame, indicated by IE "Activation time" (see subclause 8.6.3.1) received in this message; and

2> set IE "Current TGPS Status Flag" in corresponding UE variable TGPS_IDENTITY to 'inactive'.

1> if the received message not implies a timing re-initialised hard handover (see subclause 8.3.5.1):

2> continue such transmission gap pattern sequence according to IE "Current TGPS Status Flag" in the corresponding UE variable TGPS_IDENTITY.

Uplink and downlink compressed mode methods are described in [27]. For UL "higher layer scheduling" compressed mode method and transport format combination selection, see [15].